

# **SELF STUDY REPORT**

**FOR**

**1<sup>st</sup> CYCLE OF ACCREDITATION**

## **KALYANI CHARITABLE TRUST'S LATE GAMBHIRRAO NATUBA SAPKAL COLLEGE OF ENGINEERING**

SAPKAL KNOWLEDGE HUB, KALYANI HILLS, ANJANERI, TAL.  
TRIMBAKESHWAR, DIST. NASHIK, (MS) PIN - 422213  
422213

[www.sapkalknowledgehub.org](http://www.sapkalknowledgehub.org)

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**BANGALORE**

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# 1. EXECUTIVE SUMMARY

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## 1.1 INTRODUCTION

With a vision to provide complete education right from Kindergarten to Post graduation, Sapkal Knowledge Hub popularly known as SKH has been established under the aegis of Kalyani Charitable Trust by Dr. Ravindra G. Sapkal, Chairman and Managing Director of the trust in an area of 110 acres. The Government of Maharashtra has bestowed the '*Chhatrapati Shivaji Maharaj Vanashree Puraskar 2013*' to the campus for its outstanding contribution in environment protection program and tree plantation drives.

Late Gambhirrao Natuba Sapkal College of Engineering was established by the Kalyani Charitable Trust in the year 2009 with an intake of 240 and four programs which has now grown to an intake 528 and 10 programs. Our institute is affiliated to Savitribai Phule Pune University (SPPU), Pune and approved by AICTE, New Delhi, Directorate of Technical Education, Mumbai and Government of Maharashtra.

A well-planned, beautifully landscaped and neatly maintained campus provides all the state-of-the-art modern facilities, like ICT enabled classrooms, laboratories, workshop, seminar halls and an amphitheatre, which are at par with international standards and as per the requirement of the Statutory Regulatory Bodies. The library has a rich collection of sufficient number of books and periodicals with the facility of reading room and digital library. The campus is Wi-Fi enabled.

The institute provides the best hostel facility for boys and girls. Round the clock free medical consultation is available for all students and staff. A beautiful playground with running track, facilities for indoor and outdoor games and swimming pool are also available.

### **Vision**

To become a globally recognised engineering institute through innovation, research and quality education

### **Mission**

To become a leading technical institution by achieving excellence in teaching-learning process and providing an environment helpful for nurturing innovation, creativity, team-spirit, moral ethics and leadership for the welfare of the society

## 1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

### **Institutional Strength**

- State of art infrastructure facility such as well-equipped laboratory, library, ICT enabled classrooms, amphitheatre and auditoriums.
- High speed internet connectivity with a 50 mbps leased line and Wi-Fi campus
- Good Teaching Learning Process and Conducive work environment for holistic development of the staff

and students.

- Student Associations and Professional Society Chapters in every department.
- Effective Entrepreneurship Development Cell.
- Mentoring and student counselling through Teacher Guardian Scheme.
- Clean and eco-friendly green campus.
- MoUs with industry and institute for overall development of students.
- Flexible transport facility with around thirty buses.

### **Institutional Weakness**

- Located in tribal area.
- Inadequate number of PhD qualified faculty.
- Consultancy and research activities are limited.
- Very less involvement of Alumni.

### **Institutional Opportunity**

- To increase employability of the students and also encourage them for being entrepreneurs in various fields.
- To enhance alumni involvement in development of institute and placement activities.
- To encourage faculties for pursuing PhD from prestigious institutes.
- Establishing centre of excellence in each department.
- To encourage the students for participating in various competitive examinations and seeking admission in reputed institutes in India and abroad for higher studies.
- Improve research and consultancy work.
- Improving research publications in peer reviewed journals and patents of staff and students.

### **Institutional Challenge**

- Attracting and retaining faculties having PhD qualifications.
- Improve sponsored and funded research projects.
- Ensuring 100 % admission and higher merit students.
- Ensuring 100% academic results.
- Ensuring 100 % placement.

## **1.3 CRITERIA WISE SUMMARY**

### **Curricular Aspects**

The institute is affiliated to Savitribai Phule Pune University, Pune. The institute implements the curriculum designed by the affiliating university for all its courses offered through various programs. The institute has developed a robust mechanism to ensure effective implementation of the curriculum. The affiliating university reforms the syllabus periodically introducing new courses to keep in pace with changing technologies and market needs. The curriculum of the affiliating university has provision of elective courses that render breadth

to the studies related to their role as engineering professionals. The faculty members participate in the curriculum designing / implementation workshops for first-hand information about the new courses to be introduced in the curriculum. The faculties organize various subject related add-on programs to cater to career requirements. The institute has also introduced a certificate program for the final year undergraduate students which enhances their professional skills.

The curriculum content addresses cross cutting issues like environment and sustainability as well as human values and professional ethics. The institute also takes efforts in creating gender equity awareness amongst its staff and students through various programs. The institute also offers a number of value-added courses that impart transferable and life skills to the students. The students are encouraged for undertaking field projects and internships to move a step closer to towards the professional environment. The institute also invites feedback from all stakeholders about the changes necessary in the curriculum content. The feedback is analyzed to identify corrective measures and necessary changes are incorporated through a structured mechanism.

### **Teaching-learning and Evaluation**

The institute follows the admission procedure laid down by the Directorate of Technical Education, Maharashtra State, for admitting all categories of students (reserved, unreserved, Maharashtra state candidates, all India candidates, differently-abled candidates, etc.) including those admitted against '*institute level quota*'. Institute organizes orientation programme for the newly admitted students and their parents to help them in understanding the engineering curriculum and university examination process. Based on the overall ranking and qualifying marks in the merit list for first year and marks obtained in the university examinations for the second, third and final year, the institute categorises the student in different levels of learnings and provides necessary support.

The teacher student ratio is in accordance to AICTE norms and a mentorship scheme. The institute has developed a systematic five stage mechanism for effective curriculum delivery. The institute has a continuous internal evaluation system in force and has regularly reformed this system for the benefit of students and staff. The institute has also defined learning outcomes and has developed methods for measuring the attainment levels. The institute has constituted a survey centre for collecting and analysing feedback from various stakeholders.

Faculties are encouraged for higher studies through QIP scheme and are also deputed for attending QIP courses like STCs / STTPs / FDPs / workshops as well as Conferences at national and international level. The institute also motivates the faculties to use ICT Tools and now has 'smart' as well as 'ICT enabled' classrooms.

### **Research, Innovations and Extension**

The institute promotes research culture amongst its faculties and students as well by motivating and facilitating them to participate in research related activities. The institute has a research centre and has received funding for a number of research proposals from its affiliating university. The institute encourages faculties to publish their research work in reputed journals and conferences.

In order to create and transfer knowledge the institute has set up an innovation ecosystem through establishment of Innovation Centre, an Institute-Industry and Institute-Institute Interaction Cell as well as an Entrepreneurship Development Cell. The Institute has excellent collaboration with industries, academic

institutes, and professional bodies. It has signed MOUs with several esteemed organizations from academia as well as industries. The institute invites experts from industries to conduct seminars and workshops for knowledge enhancement of students and encourages them to participate in various events for showcasing their innovation skills.

The institute also takes efforts to cultivate the values of a good human being and a responsible citizen among students. The institute has a grass-root unit of National Service Scheme which serves as a major tool for development of personality of students through community service. It arranges a residential camp every year for this purpose and has adopted a nearby village. The faculties and students are encouraged to take part in several events like blood donation camp, tree plantation, Swachh Bharat Abhiyan, etc. which are organised for creating awareness on social issues. The community service has helped participants in a holistic development of their personality.

### **Infrastructure and Learning Resources**

The Institute boasts of a beautifully landscaped and eco-friendly campus with distinctive architecture. The civil infrastructure such as classrooms, laboratories, tutorial rooms, workshop, amphitheatre, and seminar hall, as well as ladies and boys common room are fully furnished in accordance with the regulations provided by the standard regulatory authorities.

The institute also has a playground with a running track, indoor and outdoor games facilities, gymnasium as well as a swimming pool. Hostel facility is provided for boys and girls separately. Medical facility with a residential doctor is available free of cost to all in the campus. A spacious canteen as well as cafeteria is also available. A flexible transport facility with around thirty buses is also available.

The Library has an excellent infrastructure and is well-stocked with a collection of 14321 technical and non-technical books, national and international print journal and e-resource, encyclopedias, dictionaries, handbooks and CD's. The institute library has automated itself using an Integrated Library Management System '*Autolib*'. The library provides access to the collection through Web OPAC.

The IT facilities include computers, printers, scanners, system softwares, application softwares, antivirus and firewall security. The institute has a high speed internet connectivity with a lease line having a bandwidth of 50 mpbs and a wi-fi campus. A security team which is well supported by CCTV coverage of 130 Camera and walkie-talkie ensures safety of the staff and students.

The maintenance of the infrastructure and equipment is carried out periodically to assure the best performance and quality functioning.

### **Student Support and Progression**

As on day today, the institute runs ten programs with a total current strength of 1910 students. The students, especially from reserved category and economically weaker sections, receive financial assistance from government through a number of schemes. The institute also provides '*Late. Gambhirrao Sapkal Meritorious Scholarship*' for meritorious students.

The institute has implemented a Teacher-Guardian scheme wherein a teacher monitors the academic and

personal progress of a batch of students. An appropriate mechanism is established to maintain the record of such students.

The Training & Placement (T&P) cell of the institute provides career guidance and organizes campus recruitment drives for the students. The T&P cell guides and counsels the students for placement & future Career activities through Campus Recruitment Training & Development Program (CRTDP). Development of entrepreneurial skills is encouraged in the students through Entrepreneurship Development Cell (EDC). Every year institute organizes & motivates students for Vocational Education & Training (VET). The institute arranges special coaching for GATE/GRE and other competitive examinations.

The institute has an active student's council which is engaged in organising various technical and cultural events. Students have representation in various association as well academic & administrative committees. A student grievance cell has also been established to deal with student grievances in a transparent manner. Students have represented the institute in various university, national and international level sports activities. Every year alumni meet is arranged in which feedback is taken from Alumni for overall developmental activities of the institute.

### **Governance, Leadership and Management**

The institute follows a collective model of governance with various stakeholders participating in the decision making process for achieving the institute's vision and mission. All departments have formulated their vision and mission in tune with that of the institute. The organisation structure originates from the Management and is assisted by the Governing Body and Local Management Committee in finalising policies, strategies and decisions. The authority for implementation of policy and strategy based decisions are delegated by the Principal to various Deans, Department Heads and Section Heads. These authorities further empower the cell / committee / bodies coordinators for implementation of policy and strategy based decisions.

The institute has well defined perspective and strategic plans for the smooth functioning of its academic and administrative functions. The institute encourages participation and organization of workshops and seminars. The institute has effectively implemented e-governance in the area of planning, administration, finance, student support and examination. The institution has a well-defined appraisal framework and assesses the faculties/staff based on their academic engagement and outcomes.

The institutes carries out internal audit every six months for appraisal of its operations and evaluation and monitoring of risk management, reporting and control practices. The institute also carries out external audit on yearly basis. The institute has a simple yet robust mechanism to ensure optimal utilisation of the resources. The institute has established IQAC with the objectives of improving the academic and administrative performance of the institute.

### **Institutional Values and Best Practices**

The institute has adopted various measures to nurture institutional values and develop practices that displays its environmental and social consciousness. The institute promotes programs for creating awareness on about gender equity. The institute is very conscious about environment protection and has received accolades for the campus as a part of green initiatives. The campus has sufficient plantation and the environment is pollution free. The institute has adopted energy saving measures like use of LED lights and solar water heaters.

The institutes has taken due care to dispose waste of all types. The solid waste before disposal is categorised into degradable and non-degradable waste. The waste like remains of plants and kitchen waste are disposed by means of composting. Non-degradable and e-waste disposed safely through a third party. Being situated in a hilly region, the institute has advantageously used its campus topology for harvesting rainwater.

The institute has taken a number of initiatives like Blood donation camp, Swachcha Bharat Abhiyan, Tree Plantation, Personality Development, etc. for improving human values and ethics among students. The institutes also celebrates various national festivals as well as anniversaries of national leaders.

The institute has developed its own model for effective implementation of teaching learning process. For the overall development of the students the institute has established student council and student associations at department level. In order to enhance the employability of the students the institute has developed a practice to bridge the skill gap that exists within students.

NAAC

## 2. PROFILE

### 2.1 BASIC INFORMATION

Name and Address of the College	
Name	Kalyani Charitable Trust's Late Gambhirrao Natuba Sapkal College of Engineering
Address	Sapkal Knowledge Hub, Kalyani Hills, Anjaneri, Tal. Trimbakeshwar, Dist. Nashik, (MS) Pin - 422213
City	Nashik
State	Maharashtra
Pin	422213
Website	<a href="http://www.sapkalknowledgehub.org">www.sapkalknowledgehub.org</a>

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Sahebrao B. Bagal	02594-220175	9922252699	02594-220174	gns_engineering@sapkalknowledgehub.org
IQAC Coordinator	Sachin S. Harak	02594-220168	9850001643	02594-220164	sachin.harak@sapkalknowledgehub.org

Status of the Institution	
Institution Status	Private

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	No



<b>Establishment Details</b>				
Date of establishment of the college		11-06-2009		
<b>University to which the college is affiliated/ or which governs the college (if it is a constituent college)</b>				
<b>State</b>	<b>University name</b>	<b>Document</b>		
Maharashtra	Savitribai Phule Pune University	<a href="#">View Document</a>		
<b>Details of UGC recognition</b>				
<b>Under Section</b>		<b>Date</b>		
2f of UGC				
12B of UGC				
<b>Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)</b>				
<b>Statutory Regulatory Authority</b>	<b>Recognition/Approval details Institution/Department programme</b>	<b>Day,Month and year(dd-mm-yyyy)</b>	<b>Validity in months</b>	<b>Remarks</b>
AICTE	<a href="#">View Document</a>	26-04-2017	12	Valid for one academic year

<b>Details of autonomy</b>	
Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?	No

<b>Recognitions</b>	
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

<b>Location and Area of Campus</b>				
<b>Campus Type</b>	<b>Address</b>	<b>Location*</b>	<b>Campus Area in Acres</b>	<b>Built up Area in sq.mts.</b>
Main campus area	Sapkal Knowledge Hub, Kalyani Hills, Anjaneri, Tal. Trimbakeshwar, Dist. Nashik, (MS) Pin - 422213	Tribal	10.21	21483.34

## 2.2 ACADEMIC INFORMATION

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<b>Details of Programmes Offered by the College (Give Data for Current Academic year)</b>						
<b>Programme Level</b>	<b>Name of Programme/Course</b>	<b>Duration in Months</b>	<b>Entry Qualification</b>	<b>Medium of Instruction</b>	<b>Sanctioned Strength</b>	<b>No.of Students Admitted</b>
UG	BE,Civil Engineering	48	HSC or Diploma or B.sc	English	221	145
UG	BE,Mechanical Engineering	48	HSC or Diploma or B.sc	English	337	230
UG	BE,Computer Engineering	48	HSC or Diploma or B.Sc	English	146	137
UG	BE,Electronics And Telecommunication Engineering	48	HSC or Diploma or B.sc	English	188	30
UG	BE,Electrical Engineering	48	HSC or Diploma or B.sc	English	123	72
PG	ME,Civil Engineering	24	B.E. or B.Tech	English	15	15
PG	ME,Mechanical Engineering	24	B.E. or B.Tech	English	15	6
PG	ME,Computer Engineering	24	B.E. or B.Tech	English	15	8
PG	ME,Electronics And Telecommunication Engineering	24	B.E. or B.Tech	English	15	4
Doctoral (Ph.D)	PhD or DPhil,Civil Engineering	36	M.E. or M.Tech	English	8	0

**Position Details of Faculty & Staff in the College**

<b>Teaching Faculty</b>												
	<b>Professor</b>				<b>Associate Professor</b>				<b>Assistant Professor</b>			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	21				38				114			
Recruited	1	0	0	1	1	0	0	1	56	18	0	74
Yet to Recruit	20				37				40			
Sanctioned by the Management/Society or Other Authorized Bodies	20				37				96			
Recruited	0	0	0	0	2	0	0	2	69	27	0	96
Yet to Recruit	20				35				0			

<b>Non-Teaching Staff</b>				
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
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				57
Recruited	50	7	0	57
Yet to Recruit				0

<b>Technical Staff</b>				
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
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				22
Recruited	18	4	0	22
Yet to Recruit				0

**Qualification Details of the Teaching Staff**

<b>Permanent Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Male</b>	<b>Female</b>	<b>Others</b>	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	1	0	0	0	0	0	0	0	0	1
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	3	0	0	94	42	0	139

<b>Temporary Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
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

<b>Part Time Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
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

<b>Details of Visting/Guest Faculties</b>					
<b>Number of Visiting/Guest Faculty engaged with the college?</b>	<b>Male</b>		<b>Female</b>		<b>Total</b>
	31		3		34

**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
Doctoral (Ph.D)	Male	0	0	0	0	0
	Female	0	0	0	0	0
	Others	0	0	0	0	0
UG	Male	1397	14	0	0	1411
	Female	438	3	0	0	441
	Others	0	0	0	0	0
PG	Male	35	0	0	0	35
	Female	23	0	0	0	23
	Others	0	0	0	0	0

<b>Provide the Following Details of Students admitted to the College During the last four Academic Years</b>					
<b>Programme</b>		<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>
SC	Male	75	135	128	89
	Female	35	51	43	26
	Others	0	0	0	0
ST	Male	35	51	33	34
	Female	18	13	6	6
	Others	0	0	0	0
OBC	Male	736	939	854	671
	Female	220	292	277	205
	Others	0	0	0	0
General	Male	427	568	530	490
	Female	120	172	158	119
	Others	0	0	0	0
Others	Male	160	237	213	167
	Female	63	74	60	50
	Others	0	0	0	0
<b>Total</b>		<b>1889</b>	<b>2532</b>	<b>2302</b>	<b>1857</b>



### 3. Extended Profile

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#### 3.1 Programme

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

Response : 395

Number of self-financed Programmes offered by college

Response : 10

Number of new programmes introduced in the college during the last five years

Response : 5

#### 3.2 Student

Number of students year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
1890	2530	2303	1856	1293

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

2016-17	2015-16	2014-15	2013-14	2012-13
304	320	308	288	234

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

2016-17	2015-16	2014-15	2013-14	2012-13
709	741	481	320	132

Total number of outgoing / final year students

Response : 2383

#### 3.3 Academic

**Number of teachers year wise during the last five years**

2016-17	2015-16	2014-15	2013-14	2012-13
180	177	162	142	110

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

2016-17	2015-16	2014-15	2013-14	2012-13
180	177	162	142	110

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

2016-17	2015-16	2014-15	2013-14	2012-13
180	177	162	142	110

**Total experience of full-time teachers**

**Response : 1385.91**

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

**Response : 2**

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

**Response : 287**

### **3.4 Institution**

**Total number of classrooms and seminar halls**

**Response : 36**

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

2016-17	2015-16	2014-15	2013-14	2012-13
663.6	1003	883.4	701.5	610.0

**Number of computers**

**Response : 460**

**Unit cost of education including the salary component(INR in Lakhs)**

**Response : 0.81731**

**Unit cost of education excluding the salary component(INR in Lakhs)**

**Response : 0.35112**

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## 4. Quality Indicator Framework(QIF)

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### Criterion 1 - Curricular Aspects

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#### 1.1 Curricular Planning and Implementation

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

###### Response:

As an affiliated institute, we follow the curriculum of affiliating University. The institute has developed a systematic mechanism for curriculum delivery as below.

###### Stage I: Preparation of Teaching Aids (One month prior to semester commencement)

- Based on the University's academic calendar, the institute prepares its own academic calendar. Slots for extra academic, cultural & sports activities are also allotted based on inputs from various administrative and academic bodies / cells / committees.
- Simultaneously, each department allots course(s) to their teaching faculties based on their specialization and interests. Supervisors are allotted for seminar & project work.
- This is followed by preparation of Class, Laboratory and Individual (Faculty) time tables. The same is displayed on notice board for the students.
- Faculties prepare / update their '*Course File*'. Well-equipped Library facilities like NPTEL, Video Lectures, e-resources, Media Centre and Departmental Library enable teachers to deliver curricula effectively in the classroom.
- Faculty members are deputed to various syllabus detailing and implementation workshops for properly perceiving the curriculum. Faculties are motivated to adopt innovative teaching practices like project based learning, blogs / personal webpages.
- The teaching plan of each course is uploaded into the ERP profile of the concerned faculty. ERP tracks and ensure timely upload of the content taught and the attendance of students.

###### Stage II: Teaching Learning (During Semester)

- The effective implementation of the curriculum is monitored by Academic Monitoring Committee coordinated by Dean Academics.
- The monthly attendance record of the students is prepared and communicated to every student. In case of defaulters, their parents are informed.
- Expert talks, Industrial Visits / Field visits are organized regularly to support curriculum delivery. For some courses workshops are organized in association with industry to bridge the need of those courses.
- The progress of the Seminar and Project work is also reviewed through a well-established mechanism.
- Continuous assessment, Mid-term submission and tests are conducted as per rubrics developed at institute level.
- Results of on-line and mid semester examinations are analyzed for the conduction of remedial classes. Extra sessions are conducted for academically weak students classified as slow learners.

**Stage III: Students Feedback (Mid-Term)**

- A mid-term feedback of students enables the institute to identify the gray areas in the teaching learning process. Corrective measures, such as counseling / mentoring of individual faculties are initiated by the Department Head.
- A Teacher-Guardian addresses the students grievances related to teaching-learning as well as personal issues. The teacher guardian, counsels a selected / allocated group of students and a separate record of the same is maintained.

**Stage IV: End Semester Activities**

- After conclusion of teaching final assessment of the term-work is done and marks are submitted to the university. The end semester exams are conducted by the university.
- Every department analyses the results of different classes immediately after declaration of result by the university.

**Stage V: Stake-holders Feedback (Term-End)**

- The institute seeks feedback from various stakeholders regarding curriculum, employability and skill acquisition.
- An assessment of the level of attainment of POs, PSOs and COs is carried out.

File Description	Document
Any additional information	<a href="#">View Document</a>

**1.1.2 Number of certificate/diploma program introduced during the last five years****Response: 1****1.1.2.1 Number of certificate/diploma programs introduced year wise during the last five years**

2016-17	2015-16	2014-15	2013-14	2012-13
0	0	0	1	0

File Description	Document
Details of the certificate/Diploma programs	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**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: 3.23**

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

2016-17	2015-16	2014-15	2013-14	2012-13
10	4	6	4	2

File Description	Document
Details of participation of teachers in various bodies	<a href="#">View Document</a>

**1.2 Academic Flexibility****1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years****Response: 32.66**

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

Response: 129

File Description	Document
Details of the new courses introduced	<a href="#">View Document</a>

**1.2.2 Percentage of programs in which Choice Based Credit System (CBCS)/Elective course system has been implemented****Response: 90**

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

Response: 9

File Description	Document
Any additional information	<a href="#">View Document</a>
Name of the programs in which CBCS is implemented	<a href="#">View Document</a>

**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:** 41.52

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

2016-17	2015-16	2014-15	2013-14	2012-13
1182	1621	1254	493	0

File Description	Document
Details of the students enrolled in Subjects related to certificate/Diploma/Add-on programs	<a href="#">View Document</a>

### 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 affiliating university has integrated cross cutting issues, such as, Environment and sustainability, Human values and professional ethics into the curriculum through various courses as described below:

Program	Course Title	Cross cutting issues addressed
Mechanical Engineering	Energy Efficient Technologies in Electrical System	Usage of energy efficient devices
	Environmental Pollution and Control	Types of pollutions, environmental
	Human Rights	Details of human rights movement
Civil Engineering	Environmental Engineering I	Noise, air pollution, water supply tr
	Environmental Engineering II	Sewage treatment, industrial waste
	Green Building Design and Construction	Need of green building for e conservation
	Human Rights	Benchmarks of human rights mover
	Engineering Ethics	Meaning & scope of ethics in gener
Electrical Engineering	Solar Thermal Systems	Design of solar thermal syste maintenance and economy
	Solar Photovoltaic Systems	Design of solar photovoltaic syst

		maintenance and economy	
	Renewable Energy Systems	Solar thermal, solar photovoltaic system, biomass, fuel cell and storage	
	Introduction to Electrical Transportation System	Environment friendly commutation	
Computer Engineering	Environmental Studies	Natural resources, ecosystem, pollution	
	Water Management	Water management planning	
	Humanities and Social Science	Social and agricultural development ecology	
	Intellectual Property Rights	IPR, trademark, copyright and trade	

Program	Course Title	Cross cutting issues addressed	
Electronics & Telecommunication Engineering	Environmental Studies Cyber Crime and Law Cyber Information and Security	Social issues and environment. Introduces the learner to cyber-crime Basic concepts of cyber law, intellectual property, fundamental, security investigation and management	
Electrical, Electronics & Telecommunication Engineering	Industrial Management	Basics of management, quality management, patents, financial and project management, resource and entrepreneurship development	
Mechanical, Civil, Computer and Electronics & Telecommunication Engineering	Road Safety Management	Planning and measures of road safety	
Mechanical, Civil, Electrical, Computer and Electronics & Telecommunication Engineering	Soft Skills / Employable Skills Development Project work	SWOT analysis, communication skills, business etiquettes, leadership skills Students undertake projects which address cross cutting issues, viz., green energy management and agricultural electrification	
Mechanical and Electrical Engineering	Energy Audit and Management	Energy management, energy auditing	

In addition to this, the institute has initiated efforts to address these issues by organising various programs on:



**Gender Equity:** A number of gender equity promotion programs to sensitize the students and staff on gender equality have been organised. These programs have raised awareness in students and staff about social, moral and legal implication of gender discrimination. Details of programs to address gender issues are uploaded.

**Environment and Sustainability:** Institute encourages environment protection practices such as, usage of bicycles in campus, common transport for staff and student, waste management, tree plantation, paperless work and plastic free campus.

**Human Values and Professional Ethics:** The institute has also taken efforts to inculcate in students' human values and professional ethics through various activities like motivational talks, blood donation camp, Swach Bharat Abhiyaan, etc.

File Description	Document
Any Additional Information	<a href="#">View Document</a>

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

**Response:** 4

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

Response: 4

File Description	Document
Details of the value-added courses imparting transferable and life skills	<a href="#">View Document</a>

### 1.3.3 Percentage of students undertaking field projects / internships

**Response:** 8.85

1.3.3.1 Number of students undertaking field projects or internships

Response: 169

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

## 1.4 Feedback System

1.4.1 Structured feedback on curriculum obtained from 1) Students 2) Teachers 3) Employers 4)

**Alumni 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
URL for stakeholder feedback report	<a href="#">View Document</a>

**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
URL for feedback report	<a href="#">View Document</a>

## 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:** 0.3

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

2016-17	2015-16	2014-15	2013-14	2012-13
7	2	8	4	6

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>
List of students (other states and countries)	<a href="#">View Document</a>

#### 2.1.2 Average Enrollment percentage (Average of last five years)

**Response:** 57.17

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

2016-17	2015-16	2014-15	2013-14	2012-13
203	427	495	495	398

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

2016-17	2015-16	2014-15	2013-14	2012-13
654	768	760	738	594

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

#### 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:** 78.56

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

2016-17	2015-16	2014-15	2013-14	2012-13
95	232	285	278	234

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

## 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 institute recognises that, students with different intellectual ability need different time duration to learn the same things. Keeping this in mind, each department head at the beginning of the semester, conducts meeting to chalk out the programmes and activities to be conducted during the semester. The institute identifies the slow and advanced learners within each class on the basis of their merit.

For students admitted to first year and second year (via lateral entry), the list of slow and advance learners is prepared based on their HSC marks (%) and diploma marks (%) respectively. If the marks are greater than 60% then a student is considered as advance learner otherwise as a slow learner. For all other students, if the marks are greater than 55% (with the candidate clearing all subjects of previous semester) then that student is considered as an advance learner, while the remaining are considered as slow learners. For all students, prerequisite tests are conducted in the beginning of the semester to identify their skills and knowledge. Based on the test results, students are guided and motivated to participate in different activities.

**Support for Slow Learners:** As far as the slow learners are concerned, the faculties are advised to support the students in following aspects:

- Identify reasons behind the learner's weak performance, assign extra task for practice, connect with them more often for follow-up and guidance, make available special learning resources, maintain their cumulative record and develop healthy relationship to boost their confidence through empowering words.
- Additionally, the institute never reflects the differences in the learners through their seating arrangements as it may stigmatize the slow learners. Instead, the teacher moves around in the classroom giving extra help to the slow learners.
- The institute also arranges remedial lectures for slow learners in critical courses. During these remedial lectures, faculty members discuss or cover complex / difficult topics.

- Teacher guardians monitor the students' progress, motivate them and keep their morale high.

**Support for Advanced Learners:** The advanced learners are given more challenging exercises as compared to slow learners. Based on their career objectives, the advanced learners are guided about preparations for various competitive examinations and specialised bridge courses. The institute also motivates the advanced learners to organise and participate in project competitions, paper presentation, poster presentation, workshops and conferences. In order to create a competitive environment, the institute felicitates first three toppers from each class of all programs every year during the annual social function.

The institute has established student council which organises a national level technical symposium 'TechnoFest' to nurture creativity and scientific temper of students. Events like these have proved to be good platform for students, especially advanced learners to showcase their talent. The institute also provides financial support to winners of various competitions, such as, paper presentation and project competition in terms of registration fees and travelling allowance. Such kind of support to fast learners also motivates the slow learners to work hard and transit themselves to fast learners.

### 2.2.2 Student - Full time teacher ratio

**Response:** 10.98

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

### 2.2.3 Percentage of differently abled students (Divyangjan) on rolls

**Response:** 0.1

#### 2.2.3.1 Number of differently abled students on rolls

Response: 2

File Description	Document
List of students(differently abled)	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>

## 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 institute has developed a culture for *student centric learning* by introducing methodologies like experiential learning, participative learning and problem solving methodologies. A '*Teaching Learning*

*Development Centre*' has been constituted to guide the faculty for use of interactive teaching learning aids so that the students are nourished in terms of knowledge, skill and attitude. At the beginning of the semester, as per the prerequisite and objectives of the courses the faculties identifies different instructional approaches and academic-support strategies for the students.

### ***Experiential Learning***

The institute has adopted the experiential way of teaching the students by developing a '*Course content delivery proforma*', which helps faculties in identifying and including various methodologies and strategies for planning their course delivery. These methodologies include both, 'passive and active teaching tools'. The '*proforma*' also covers all the four phases of experiential learning, viz., concrete experience, reflective observation, abstract conceptualization and active experimentation.

***Concrete Experience:*** The usage of tools like 'simulators', and 'trigger films' very well motivate the students for cognitive thinking. Tools like 'brain storming sessions', 'group discussions', 'debates', 'internship', 'industry visit', 'think-pair-share' and 'peer teaching' are used to build the knowledge and skills and give the learner either a new experience of the concerned subject or a reinterpretation of existing experience.

***Reflective Observation:*** Tools like 'case studies', 'quizzes' and 'assignment', help the students to reflects on the experience gained on personal basis.

***Abstract Conceptualization:*** The students are given opportunities by the teacher to present new ideas or modification of existing ideas based on reflection of their experience through 'oral presentations' and 'posters'.

***Active Experimentation:*** Being an engineering institute, most part of the curriculum involves understanding of concepts through '*Lab-work*'. Students utilise almost 40 % of the study hours for active experimentation. At the end of semester, lab journal is prepared based on the experimentation and the students are assessed for the same.

### ***Participative Learning***

Students are said to be involved in learning when they are doing something besides passively listening. In order to motivate the students for participative learning, the faculties involve them in various classroom activities, like role play, peer teaching, think-pair-share, quiz, brainstorming sessions, small group discussions and debates. For some courses, the experiments in laboratory are performed by students in small groups where the teacher instructs them and are then assigned the task of performance on their own. This method of participative learning develops group collaboration in students.

### ***Problem Solving Methodologies***

The institute encourages students to learn about a topic or subject by solving an open-ended problem. Based on the need of the courses, the faculties assign '*case studies*' and '*mini-project*' at the pre-final year and a '*major project*' at the final year level to students in small groups. In these activities, the students are not bounded to use defined problem solving methodologies, but are encouraged for innovative solutions which helps for the development of skills and attributes such as knowledge acquisition, enhanced group collaboration and communication.

File Description	Document
Link for Additional Information	<a href="#">View Document</a>

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

**Response:** 100

#### 2.3.2.1 Number of teachers using ICT

Response: 174

File Description	Document
List of teachers (using ICT for teaching)	<a href="#">View Document</a>

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

**Response:** 20.54

#### 2.3.3.1 Number of mentors

Response: 93

File Description	Document
Year wise list of number of students, full time teachers and students to mentor ratio	<a href="#">View Document</a>

### 2.3.4 Innovation and creativity in teaching-learning

**Response:**

The purpose of engineering education is to prepare students to learn fundamental concepts and engineering principles and apply them in creative problem solving as well as in the design or development of new products or processes. Even in the contemporary times, lecture based learning is predominant in most engineering institutes and puts the students into the passive mode of writing down notes. The students do not actively participate in in-depth learning of the content and are thus not able to develop essential problem-solving skills and other attributes. The institute has thus introduced a number of measures to make learning livelier by actively involving the students in the teaching-learning process.

In the first of its efforts, the institute has encouraged faculties to *integrate technology with teaching*. Faculties themselves access teaching material from various e-resources, viz., e-books, e-journals, e-forums, webinar, e-learning through NPTEL, Khan Academy, you-tube videos, Trigger films, Virtual labs, search engines, etc. The faculties have made available e-materials, assignments, multiple choice questionnaires to students through various tools like, ERP, WhatsApp, Blog or Personal webpage and also through Google

Groups or Google Classroom for theory and practical courses. The students can access this material as per their convenience.

The institute has also attempted to **implement experiential learning** to make learning more effective and enjoyable to students. *Classroom activities* like brainstorming sessions, group discussions, debates, quizzes, think-pair-share and peer teaching involve the students in active learning. Individual activities like case studies, assignments and role play help the students to reflect on their experience gained through learning. They are able to express their views through oral presentations and posters. Activities performed in lab help the students to verify and scientifically understand fundamentals concepts and thus increase their motivation to learn.

The institute through its '*Innovation Centre*' has provided platform for students **learn through innovation** by coming up with innovative ideas. They are also encouraged to think differently and independently beyond adversities and are provided with opportunities to showcase their innovative approach through various student activities. The students are also mentored by industry experts. The *Innovation Centre* especially conducts idea pitching sessions and workshops for nurturing innovative ideas.

The faculties through various classroom activities, like role play, peer teaching, think-pair-share, quiz, brainstorming sessions, small group discussions and debates involve students in **participative learning**. In some courses, the students in groups are motivated to perform laboratory experiments on their own in laboratory. This method enables the students to develop group collaboration.

The institute encourages students to **solve open-ended problem** for developing skills and attributes such as knowledge acquisition, enhanced group collaboration and communication. Activities like '*case studies*' and '*mini-project*' at the pre-final year and a '*major project*' at the final year level to students in small groups supports this learning methodology.

## 2.4 Teacher Profile and Quality

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

**Response:** 100

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years	<a href="#">View Document</a>

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

**Response:** 3.98

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

2016-17	2015-16	2014-15	2013-14	2012-13
8	7	7	5	4



File Description	Document
List of number of full time teachers with PhD and number of full time teachers for 5 years	<a href="#">View Document</a>

### 2.4.3 Teaching experience of full time teachers in number of years

**Response:** 7.97

File Description	Document
List of Teachers including their PAN, designation,dept and experience details	<a href="#">View Document</a>

### 2.4.4 Average 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:** 0.54

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

2016-17	2015-16	2014-15	2013-14	2012-13
1	0	2	0	1

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

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

**Response:** 2.82

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

2016-17	2015-16	2014-15	2013-14	2012-13
2	2	5	6	5

File Description	Document
List of full time teachers from other state and state from which qualifying degree was obtained	<a href="#">View Document</a>

## 2.5 Evaluation Process and Reforms

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

#### Response:

The undergraduate students are evaluated internally for their performance in unit/class test, assignments, term (laboratory) work, seminar and project work, whereas, the post graduate students are evaluated internally for unit test, open book test, assignments, presentations, laboratory work, seminars and project work. The assessment is done in a transparent way through a well-defined mechanism developed by the institute and as per the guidelines of the affiliating University. This evaluation process has seen a gradual change in the recent past. The initial internal evaluation system adopted by the institute since its establishment was reformed in academic year 2012-13 due to reforms carried out by the affiliating university in its external evaluation system. After the establishment of IQAC in July 2017, a review of the existing internal evaluation system by the Teaching Learning Development Cell necessitated some major reforms to improve the existing assessment pattern.

#### *I] Continuous Internal Evaluation System (AY 2009-10 to 2011-12):*

*For undergraduate students:* In this duration, the undergraduate students were evaluated for unit test, assignments, laboratory work, seminar and project work.

*For postgraduate students:* The post graduate students were evaluated for laboratory work, seminars and project work.

#### *II] Continuous Internal Evaluation System (AY 2012-13 to 2016-17):*

The affiliating university reformed its external evaluation method in the year 2012. The change in external assessment was evident by the introduction of Online tests and In-semester examination. The continuous internal evaluation system of the institute was reformed for unit test and laboratory work. In this revised examination pattern, introduction of class tests was visualised as a more realistic form of continuous internal assessment where the students were required to face assessment almost every fortnight thereby assuring continuous learning on the part of the students.

#### *III] Continuous Internal Evaluation System (AY 2017-18 onwards):*

Through its Teaching Learning Development Cell, the IQAC reformed the continuous internal evaluation system by increasing the number of classroom activities and introducing the rubrics for assessment of the same. Following are the reforms implemented:

- The students are evaluated for learning goals based on blooms taxonomy.
- For knowledge based assessment, the students will be tasked with any three of the following six

writing activities: Tutorials, Monthly tests, Assignments, Open book tests, Class tests and Case study.

- The students will also be assessed for knowledge based assessment on the basis of any three of the following seven verbal activities: Debate, Group discussions, Quiz, Oral presentations, Think–Pair–Share, Posters and Brain storming.
- For skill based assessment, the students would be tasked with any three of the following six physical activities: Lab work, Mini projects, Project work, Case study, Simulations and Role play
- For attitude based assessment, the students would be tasked with any three of the following writing activities: Oral discussions, Quiz, Multiple choice questions, Debate, Group discussions and Role play.

All the head of departments played active role in effective implementation of internal evaluation reforms initiated by the institute by making staff and students aware of them.

File Description	Document
Any additional information	<a href="#">View Document</a>

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

#### Response:

A defined internal assessment system is one of the fortress of the institute. For an unbiased and transparent assessment of the students on various fronts, the institute has taken due care to ensure that the rubrics developed are flawless and comprehensive. The performance criteria in each of the rubrics have been properly defined and appropriate weightage have been assigned to each definition. The institute also ensures that the students are aware in advance about the assessment schedule as well as method used for assessment in various heads like class test, assignments and laboratory work of various courses as well as for seminar and project work.

The academic calendar prepared by each department is communicated well in advance to the students so that they are aware about the schedule of internal evaluation. After each assessment, the students are notified about their performance. In case of class test, the evaluated answer scripts are shown to the students so that they can take stock of their performance and are briefed by the teacher about their strength and weakness in each concerned area / topic. This helps the students to work on their weakness and thereby enhance their performance. Although the lab work is evaluated on timely basis, the institute has made provision for mid-term submission so as to avoid unnecessary delay in the assessment of lab work. It also helps to concerned lab teacher to review the students' progress. The slow learners are properly supported by allowing them to redo / repeat their experiments, if necessary, for proper understanding.

Each department appoints a separate seminar and project coordinator to monitor the seminar and project activities. The schedule of activities for each semester and the expected date of completion of these activities are communicated well in advance to the students. The project work undertaken by the final year students are evaluated as per the schedule and students are given inputs on their weaknesses and scope for improvement. Each project group maintains a log / progress book with records of their weekly activities. These books are checked by the project supervisor on a regular basis. The outcome of this assessment is

discussed with students.

So as to maintain the transparency the summary of marks for the internal assessment is displayed on the departmental notice board and informed to the parents along with their academic progress.

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

#### **Response:**

The institute has a dedicated administrative section called '*Examination Section*' to deal with all examination matters such as, filling examination form, examination fees charges, conduction of online examinations, in-semester examination, end semester examination, assessment of in-semester answer books, uploading of term-work, oral, practical and in-semester examination marks, mark sheet distribution, verification and revaluation of marks and convocation. The institute has appointed a '*College Examination Officer*' in compliance to the guidelines of the affiliating university. This officer monitors all the activities of the examination section.

In order to address the grievances of the students related to the examinations, the institute has developed a mechanism as below:

- An aggrieved student addresses his grievance in a written form to the Principal and submits it to the college examination officer.
- The college examination officer assesses the nature of grievance to identify whether it can be addressed at department level or institute level or university level.
- If the grievances are of nature such as, missing of examination number in exam timetable, change of exam batch during practical examination, unavailability of hall ticket, etc., and can be addressed at department level, then college examination officer forwards the application to the Head of Department with proper remark. The Head of Department ensures that the grievance will be resolved on the same day.
- If the grievances are of nature such as, availing extra time / writer for physically challenged students or on medical background, request for reserved mark-sheet, late submission of examination form, etc., and can be addressed at institute level, then college examination officer in consultation with the Principal resolves the grievance within a day or two with the support of examination section.
- If the grievances are of nature such as, request to apply for photocopy, revaluation of answer-sheet, correction in mark sheet, retrieval of user name and password, addition / deletion of subject in the examination form, etc., and can be addressed at University level, then the college examination officer in consultation with the Principal forwards the grievance to the University authorities. The examination section keeps a track of the grievances and try to resolve it as early as possible.
- Once the complaint gets resolved by the university, the examination section immediately informs the same to the concerned student through the Head of Department.

In order to maintain transparency in the redressal mechanism, the institute has purposely involved authorities like *College Examination Officer, Head of Department and Principal* in the process.

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

### Response:

At the beginning of each academic year, the affiliating university declares schedule for conduction of various academic activities like, commencement of the semester, online examinations and in-semester examinations, end of the semester, oral and practical examinations, end semester examinations, vacations for staff and students.

- Based on the University's academic calendar, the Academic monitoring committee prepares the academic calendar of the institute. Slots for extra academic, cultural & sports activities are also allotted based on inputs from various administrative and academic bodies / cells / committees.
- After the approval by the Principal, the academic calendar is then notified to each department for preparation of the department's academic calendar. The academic coordinator of each department then prepares the departmental academic calendar in consonance with the institute's academic calendar and includes schedule about the seminar and project work activities.
- Each department head allots course(s) to their teaching faculties based on their specialization and interests. Supervisors are allotted for seminar & project work.
- This is followed by preparation of Class, Laboratory and Individual (Faculty) time tables. The same is displayed on notice board for the students.
- The academic calendar has a clear mention about the dates for conduction of In-semester exams (both online and offline), the mid-term submission and term end.
- The schedule for assessment of the seminar and project activities is usually communicated to the students separately department wise as per the department academic calendar.
- The effective implementation of the curriculum is monitored by Academic Monitoring Committee coordinated by Dean Academics.
- The monthly attendance record of the students is prepared and communicated to every student as well as their parents.
- The progress of the Seminar and Project work is also reviewed through a well-established mechanism.
- The academic monitoring committee thus ensures that the students are assessed on regular basis through class tests, mid-term submission and term-end submission of laboratory work, and presentations for Seminar and Project work as per rubrics developed. Results of on-line and mid semester examinations are analyzed for the conduction of remedial classes. Extra sessions are conducted for academically weak students classified as slow learners.

File Description	Document
Link for Additional Information	<a href="#">View Document</a>

## 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 Program Outcomes (POs), Program Specific Outcomes (PSOs) and Course Outcomes (COs) of various academic programs are displayed on the Institute website so as to reach to all the stake holders. The Program Outcomes (POs) and Program Specific Outcomes (PSOs) are displayed in the department for the awareness of all the students.

Apart from this, they are also projected at various platforms like:

- Alumni meet of alumni chapters
- Parents' meet
- Department Advisory Board (DAB) meetings
- Printed Material – (Lab Journals, Course files and News Bulletin)
- Published in institute prospectus, admission brochures, institute magazine and journals, seminar and workshop leaflets as well as conference proceedings.
- All faculties communicate the COs of their respective courses through their lectures on regular basis

File Description	Document
COs for all courses (exemplars from Glossary)	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

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

**Response:**

The institute has established advisory boards for each department to mentor them in defining academic and research goals for the holistic development of the students. The board members are also expected to guide the department in developing its assets thereby enhancing its abilities to meet defined goals. Accordingly, each department have defined their short term and long term goals in terms of mission and vision. Each department have also set quality benchmarks (by defining their program educational objectives, program outcomes, program specific outcomes and course outcomes) to achieve the mission and vision.

***Method for measuring attainment:***

The attainment of POs, PSOs and COs can be well measured using direct and indirect methods. The direct methods are internal and external evaluation carried out by the institute in terms of examination or observations of students' knowledge / skill / attitude against measurable learning outcome. The indirect method of measurement includes collection of data or evidence through reported perception (feedback) by various stakeholders. The institute has thus constituted a 'Survey Collection Centre' to collect and analyse feedback from various stake holders. Rubrics / feedback forms have been developed to collect feedback data from student, parent, employer, faculty and alumni.

**Attainment of COs:** The feedback from students in the form of course exit survey helps to measure the attainment of COs. Apart from this indirect method (feedback), the institutes also uses direct methods like performance in university exams as well as class test and class activities for measuring attainment of COs.

**Attainment of POs and PSOs:** The feedback from the graduating students helps in measuring the attainment of POs and PSOs,

**Attainment of PEOs:** The feedback from alumni and employer helps in measuring attainment of PEOs.

***Level of attainment achieved:***

**COs:** In general, while calculating the level of attainment of COs for each course, 80% weightage is given to direct method, whereas 20% weightage is given to indirect method. For direct method, the data is obtained from internal and external assessment is mapped on a predefined scale. For indirect method, analysis of feedback collected from various stakeholders is mapped on a pre-defined scale similar to that used for direct method.

Attainment of course outcome is calculated using following relation:

$$= (0.8 \times DA) + (0.2 \times IDA)$$

Where, DA = attainment through direct method, and

IDA = attainment through indirect method.

**POs:** The attainment of program outcomes is computed by the indirect method. To find out the overall achievement of each PO, the average values of all PO by all courses given as 80% weightage and 20% weightage given to program exit survey. The frequency of this feedback collection is once in a year. Hence, to determine the attainment of program outcome is calculated using following relation:

$$= (0.8 \times \text{Avg\_CO}) + (0.2 \times \text{APE})$$

Where, Avg\_CO = Average attainment of all COs, and

APE = attainment through program exit survey.

**PSOs:** The attainment of program specific outcomes is computed by the indirect method and procedure similar to that of attainment of POs is followed.

**2.6.3 Average pass percentage of Students**

**Response:** 80.11

2.6.3.1 Total number of final year students who passed the university examination

Response: 568

2.6.3.2 Total number of final year students who appeared for the examination	
Response: 709	
<b>File Description</b>	<b>Document</b>
Institutional data in prescribed format	<a href="#">View Document</a>

## 2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process	
Response:	
<b>File Description</b>	<b>Document</b>
Database of all currently enrolled students	<a href="#">View Document</a>



## 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**

**Response:** 10.7

3.1.1.1 Total Grants for research projects sponsored by the government/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)

2016-17	2015-16	2014-15	2013-14	2012-13
5.7	0	3.4	1.6	0

File Description	Document
List of project and grant details	<a href="#">View Document</a>
e-copies of the grant award letters for research projects sponsored by non-government	<a href="#">View Document</a>

**3.1.2 Percentage of teachers recognised as research guides at present**

**Response:** 0

3.1.2.1 Number of teachers recognised as research guides

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

**3.1.3 Average number of research projects per teacher funded by government and non government agencies during the last five years**

**Response:** 0.02

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

**Response:** 6

File Description	Document
Supporting document from Funding Agency	<a href="#">View Document</a>
List of research projects and funding details	<a href="#">View Document</a>
Funding agency website URL	<a href="#">View Document</a>

## 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:

An innovation eco-system prevails in the institute through the presence of Innovation Centre (IC), Research Advisory Committee (RAC), Institute-Industry and Institute-Institute Interaction Cell (I5C) and Entrepreneurship Development Cell (EDC). The institute has also encouraged establishment of various student chapters at department level to complement the activities of above cells. This ecosystem works in following three stages:

- 1. Creation of knowledge:** This is the first stage of the ecosystem where individuals are motivated to think differently and independently to come up with innovative ideas. They are also encouraged to think beyond adversities and are provided with opportunities to showcase their innovative approach. The innovative mindset is further mentored by industry experts and through training sessions. The institute has a rich library which serves as a source of knowledge. The institute also earmarks funds to support the innovative culture. The *Innovation Centre* especially has an active role to play in the process of motivation and support for fostering innovative ideas through idea pitching sessions and workshops. The RAC is committed to develop scientific temper & research culture amongst these young innovators.
- 2. Transfer of knowledge:** This is the second stage of the system where a platform is provided for exchange of innovative ideas thus leading to transfer of knowledge. The students are encouraged to participate in various technical events where they can either present their ideas in the form of technical articles / posters or showcase their innovative models in project exhibitions or scratch their gray matter for answering quizzes or compete with their counterparts from other institute in various events. The institute also hosts a National level technical symposium on yearly basis in which atleast 15 events / competitions are conducted with a participation of more than 1000 students from all over the country. Along with the students, the institute encourages the faculties to apply for major / minor research proposals. As an outcome of this activity, 06 minor research proposals have been sanction by the university and completed by the faculties. The institute has also established Research Journal Publication Committee which will serve as an in-house platform for publication of innovative findings.
- 3. Incubation:** This is the third stage of the ecosystem where individuals with innovative ideas are well complemented with technical advice and expertise. They undergo incubation sessions where industry experts brief them about market scenarios and business tactics. The EDC conducts seminar and workshops on regular basis. So far 04 entrepreneurship awareness seminars and 06 entrepreneurship awareness camps have been conducted and more than 1400 students have benefited by the same. At present more than 60 alumni are successful entrepreneur. The students

are also encouraged to take up industry sponsored projects and innovation centre helps the students to register good projects and ideas for patent. The incubator, thus helps an individual to understand his potential as an independent performer.

The innovation ecosystem thus works to support an individual in his quest for becoming an entrepreneur or a consultant or a researcher.

File Description	Document
Any additional information	<a href="#">View Document</a>

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

**Response:** 48

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

2016-17	2015-16	2014-15	2013-14	2012-13
15	23	6	4	0

File Description	Document
List of workshops/seminars during the last 5 years	<a href="#">View Document</a>

## 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	<a href="#">View Document</a>

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

**Response:** Yes

File Description	Document
List of Awardees and Award details	<a href="#">View Document</a>

**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

**File Description**

List of PhD scholars and their details like name of the guide , title of thesis, year of award etc

**Document**[View Document](#)**3.3.4 Number of research papers per teacher in the Journals notified on UGC website during the last five years****Response:** 0.09

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

2016-17	2015-16	2014-15	2013-14	2012-13
23	25	14	5	6

**File Description**

List of research papers by title, author, department, name and year of publication

**Document**[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:** 0.15

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

2016-17	2015-16	2014-15	2013-14	2012-13
45	63	11	11	2

**File Description**

List books and chapters in edited volumes / books published

**Document**[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 takes efforts to cultivate the values of a good human being and a responsible citizen among students. The institute has a grass-root unit of National Service Scheme (NSS) which serves as a major tool for development of personality of students through community service. Such activities that bring students face to face with the community not only improves the quality of community life, but also overwhelms the hearts of the participants with a long lasting impression.

The NSS unit has adopted a village named 'Wadholi' in its neighbourhood and arranged five camps over here in the last few years. A number of activities based on village survey have been conducted for the benefit of the village community. These include awareness on social issues like cleanliness, alcoholism and female foeticide through street plays, awareness about government employment schemes, drawing and handwriting competition for school children. Public health issues were addressed by conducting health check-up camp and eye check-up camp. For a major part of the time, the volunteers were involved in manual activities like repairing retaining wall of dam meant for water harvesting, construction of soak-pits, etc.

Through these activities, the students learned the hard way of life while associating and helping the village people. It exposed them to diverse culture, thereby inculcating the values of tolerance. The village life also taught the students to live life in limited resources / adverse situations. It also imbibed in them the importance of self-initiatives thereby tapping the dormant leadership qualities within them while working at community levels. Along with leadership traits, they also learned the art of cooperation for accomplishing herculean tasks. It also removed the urban-rural divide as the youth from the city freely mingled with the villagers during their residential camp and thus helped them in thinking about them as their own who needed help and support to come into the mainstream. Free social mingling of girls and boys in the camps helped them in developing a healthy gender relationship.

Apart from the activities of NSS unit, the institutes has also involved the students in large number for carrying out activities like afforestation, cleaning of historical places, cleanliness drive and road safety awareness in the other neighbourhood areas like village Anjaneri, Trimbakeshwar town and Nasik city. Crowd assessment during Kumbh-mela 2015 was an important task undertaken. Fund raising campaign for drought hit farmers and martyr's family was successfully conducted. These activities have helped the students to understand the need of environment conservation, cleanliness and discipline and value cultural heritage. A feeling of responsibility towards society and nation was also imbibed in them.

Thus, community service helps the volunteers / participants in a holistic development of their personality in comparison to their peers (non-volunteers / non-participants). The participants were found superior in various aspects like, tolerance, acceptance of situational diversity, priority to educational achievements, communication skill, attitude towards women, attitude towards manual work, leadership skills, team work, patriotism, value for culture and involvement in sports and co-curricular activities.

File Description	Document
Any additional information	<a href="#">View Document</a>

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

**Response:** 40

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

2016-17	2015-16	2014-15	2013-14	2012-13
10	15	5	4	6

File Description	Document
e-copy of the award letters	<a href="#">View Document</a>
Number of awards for extension activities in last 5 years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 3.4.3 Number of extension and outreach programs conducted in collaboration with industry, community and Non-Government Organisations through NSS/NCC/Red cross/YRC etc., during the last five years

**Response:** 33

3.4.3.1 Number of extension and outreach programs conducted in collaboration with industry,community and Non-Government Organisations through NSS/NCC/Red cross/YRC etc.,year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
10	11	5	3	4

File Description	Document
Number of extension and outreach programs conducted with industry, community etc for the last five years	<a href="#">View Document</a>
Reports of the event organized	<a href="#">View Document</a>

### 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:** 36.78

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

2016-17	2015-16	2014-15	2013-14	2012-13
1122	1400	703	312	283

File Description	Document
Average percentage of students participating in extension activities with Govt. or NGO etc.	<a href="#">View Document</a>
Report of the event	<a href="#">View Document</a>

## 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:** 124

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

2016-17	2015-16	2014-15	2013-14	2012-13
43	32	31	14	4

File Description	Document
Number of Collaborative activities for research, faculty etc.	<a href="#">View Document</a>

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

**Response: 15**

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

2016-17	2015-16	2014-15	2013-14	2012-13
9	4	2	0	0

File Description	Document
Details of functional MoUs with institutions of national, international importance, other universities etc. during the last five years	<a href="#">View Document</a>
e-copies of the MoUs with institution/ industry/ corporate house	<a href="#">View Document</a>



## 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 institute has ensured availability of adequate facilities like classroom, laboratories and computing facilities as prescribed by the affiliating university and AICTE, New Delhi. The details are as below:

Particulars	Requirement for existing intake as per AICTE			
	Quantity (Nos.)		Area (Sq.m.)	
	Required	Available	Required	Available
Class rooms (UG)	29	29	1914	21
Class rooms (PG)	04	04	132	14
Tutorial rooms (UG)	07	10	231	33
Laboratories (UG)	56	56	3696	37
Laboratories (PG)	04	04	264	73
Computer Centre (UG)	01	01	150	18
Research Laboratories (PG)	01	01	120	18
Language Laboratory	01	01	66	66
Drawing Hall (UG)	01	01	132	13
Workshop (UG)	05	05	1000	10
Seminar Hall (UG & PG)	03	03	396	97
Library and Reading room	01	01	400	60

The details of the computing facilities available in the institute are as below:

Type of facility	Required	Available
Number of computers	431	460
Number of computers in LAN	431	460
Printers	22	23
Legal application software	20	21
Legal system software	03	03
Internet bandwidth	48	50

The other facilities necessary as required by statutory regulatory bodies are as below:

Sr. No	Facilities available
1.	Digital Library
2.	Drinking Water Supply
3.	Parking Facilities
4.	Electrical Generator
5.	All Weather Approach Road
6.	General Notice Boards
7.	Departmental Notice Boards
8.	Telephone & Fax

9.	Sewage Disposal System
10.	Reprographic Facilities in the Institutions
11.	Medical Facilities
12.	First Aid Facility

  

File Description	Document
Link for Additional Information	<a href="#">View Document</a>

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

##### Response:

From the day of its establishment, the institute has made available to the students various facilities for conduction of sports and cultural events. The details of the facilities available with its user rate is described below:

##### *Facilities for Indoor Sports*

S. No.	Name of Sports Facility	Area Size	/Qty.	Year of Est.	PA* User Rate for		Usage
					Events	Practice	
1	Table tennis	15 m	01	2010	20	150	For prac
2	Chess		05	2010	20	100	conduct
3	Carrom	×	05	2010	35	250	matches
4	Boxing	04 m	01	2010	01	10	
5	Gymnasium equipment-	30 m		2010	--	150	Regular resident
	1. Gym machine	×	01				
	2. Cross-bar						
	3. Treadmill	25 m	01				
	4. Cycle		02				
			02				

##### *Facilities for Outdoor Sports*

S. No.	Name of Sports Facility	Area Size	/Qty.	Year of Est.	PA* User Rate for		Usage
					Events	Practice	
1	Volleyball Court	15 m	02	2010	200	550	For prac inter d inter col
		×					
		25 m					

2	Cricket Ground	2826 m <sup>2</sup>	01	2009	362	900	For prac inter d inter col
3	Basketball Court	30 m × 20 m	01	2009	12	50	Conduct and SKI every ye
4	Football Ground	90 m × 45 m	01	2010	237	575	Conduct and SKI every ye
5	Kabaddi	16 m × 14 m	01	2011	72	200	Conduct and SKI
6	Athletics	300 m	01	2009	07	30	Inter de held eve
7	Swimming	24 m × 16 m	01	2012	---	30	For prac

\*PA – Per annum

**Facilities for Cultural / Festive Events**

S. No.	Name of Cultural Facility	Area Size	/Qty.	Year of Est.	User rate	Usage Description
1	Seminar Hall	970 m <sup>2</sup>	03	2009	75 activities / year	Conduction of:  SKH Arts Club ac  Fresher's and Fa day celebration,  Engineers day cele  graduation ceremo  expert talks,  campus drive, etc.
2	Amphitheatre	1032 m <sup>2</sup>	0.1	2009	07 / year	Annual-fest days c



**Response:**

The library of the institute supports two main purposes, viz., it supports the UG and PG curriculum of the affiliating university and it also supports research activities of the institute faculties and students. The Library has an excellent infrastructure and is well-stocked with a collection of 14321 technical and non-technical books, national and international print journal and e-resource. The *Library* maintains a separate reference collection consisting of encyclopedias, dictionaries, handbooks and CD's. The books are classified according to the '*Dewey Decimal Classification Scheme*'.

The institute library has automated itself using an Integrated Library Management System (ILMS) to handle the available volume of books and other resource material. This ILMS software handles all the activities of the library including acquisition, circulation, accession, serial control, indexing and member info, etc. The details of the ILMS is as below:

- **Name of the ILMS software** : AUTOLIB
- **Nature of automation** : Fully automated
- **Version** : 'Autolib NG 2016'
- **Year of automation** : October 2009

The institute has provided access to the library collection through Web-OPAC also.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

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

**Response:**

The institute has a significant collection of rare books to enrich its library. The collection comprises of books from various fields of engineering and technology and are of different categories. Books of civil engineering, computer engineering, mechanical engineering, electrical engineering and electronics and telecommunication engineering are available. Handbooks of various fields and encyclopedias of science and technology are also a part of this collection. Though these books are recent in terms of year of publication, but their low availability in the market and inaccessibility due to high cost have made them rare. There are 56 such rare books which are available for accession to the students and staff. The list of this has been uploaded.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

#### 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.	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

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

**Response:** 9.68

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

2016-17	2015-16	2014-15	2013-14	2012-13
20.93	6.87	6.15	3.28	11.16

File Description	Document
Details of annual expenditure for purchase of books and journals during the last five years	<a href="#">View Document</a>

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

**Response:** Yes

File Description	Document
Details of remote access to e-resources of the library	<a href="#">View Document</a>

#### 4.2.6 Percentage per day usage of library by teachers and students

**Response:** 1.97

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

Response: 41

File Description	Document
Details of library usage by teachers and students	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 4.3 IT Infrastructure

#### 4.3.1 Institution frequently updates its IT facilities including Wi-Fi

**Response:**

The institute has made available a number of IT facilities like computers, printers, software (both legal and application), internet connectivity in classrooms and laboratories through wired and wireless connectivity. The institute also has dedicated manpower. There is a server room and the institute protects unethical usage of internet using firewall. The systems are protected from virus attack by legal antivirus software. The description of IT facilities with details of installation and updates are mention below:

Sr. No.	Description of facility	Details of Installation		Details of Updation		Nature of
		Qty.	Year	Qty.	Year	
1	Computers	250	2011	460	2017	Quantity u
2	Printers	22	2011	22	2017	As per AIC
3	Legal System Software	03	2011	03	2017	As per AIC
4	Legal Application Software	18	2011	21	2017	Quantity u
5	Internet Connectivity Bandwidth	02 mbps	2011	50 mbps	2017	Bandwidth

6	Labs with net connectivity	09	2011	17	2017	Quantity u
7	Classrooms with net Connectivity	04	2011	05	2017	Quantity u
8	Wi-fi Connectivity (Hotspots)	02	2011	06	2017	Quantity u
9	Dedicated Manpower	05	2011	06	2014	Quantity u
10	Server room	01	2011	--	--	Size updat
11	Firewall	01	2011	--	--	Lifetime
12	Antivirus	250	2015	--	--	License re Feb 2018  Virus data daily basis

#### 4.3.2 Student - Computer ratio

**Response:** 4.15

File Description	Document
Student - Computer ratio	<a href="#">View Document</a>

#### 4.3.3 Available bandwidth of internet connection in the Institution (Lease line)

<5 MBPS

5-20 MBPS

20-35 MBPS

35-50 MBPS

**Response:** 35-50 MBPS

File Description	Document
Details of available bandwidth of internet connection in the Institution	<a href="#">View Document</a>

#### 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	<a href="#">View Document</a>



## 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:** 15.69

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)

2016-17	2015-16	2014-15	2013-14	2012-13
98.22	133.13	145.42	123.63	99.29

#### File Description

#### Document

Details about assigned budget and expenditure on physical facilities and academic facilities

[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 infrastructure of the institute has been developed in an area allotted as per AICTE norms in a campus of more than 110 acres. For the maintenance of such a large campus, the Kalyani Charitable Trust has established a dedicated maintenance team headed by a civil engineer. This team comprises of electricians, telephone lineman, plumbers, carpenters and painters, housekeepers, gardeners, a system administrator, a transport coordinator and a motor mechanic. The institute has also established its own maintenance cell and comprises of members from all departments / sections of the institute. This cell coordinates with the campus maintenance team for all types of maintenances as per a defined mechanism.

In general, following is the procedure followed for utilisation and maintenance of various facilities:

#### 1. Physical facilities:

##### *Civil Infrastructure*

*Utilisation:* As per the requirement of the statutory regulatory bodies, the required physical facilities are made available to the students of the respective department under the supervision of the head of department. The boys and girls hostel, guest house are available in the campus.

*Maintenance:* All the physical infrastructure is cleaned by adequate housekeeping staff. In case of civil repair work, the concerned staff reports it to the maintenance cell of the institute and the maintenance cell forwards it to the campus maintenance team through the Principal. The campus maintenance team then

executes the repairs and informs about the completion to the maintenance cell. The gardeners maintain the grounds, lawns and upkeep of plants.

### **1. Academic Facilities:**

#### ***Laboratory Equipment, Computers and Library***

*Utilisation:* The laboratory equipment and computers are made available to the students of concerned department as per the curriculum. Generator and UPS is used as a power backup in case of non-availability of power. The library and reading room is open for utilisation to all its registered staff and student members from Monday to Saturday during working hours.

*Maintenance:* For the maintenance of laboratory equipment, electrical wiring and fixtures and IT facilities, a requisition is placed to the institute maintenance cell. This team investigates the problem and solves those issues if within their technical limits. Critical maintenance issues of laboratory equipment and IT facilities are outsourced to concerned external agencies for servicing / maintenance / repair as per defined procedure.

### **1. Support facilities:**

#### ***Sport Complex***

- The indoor and outdoor sports complexes including gymnasium is used by the students on almost daily basis for physical recreation and for practice sessions under the supervision of the physical director.
- For any type of maintenance of the sports complex, the physical director forwards a requisition to the campus maintenance team through the Principal.

#### ***Buses and Light Motor Vehicles:***

- The institute has a fleet of 25 buses and 05 passenger vehicles. The students can avail the transport facility from the institute after payment of fees as pre-defined by the institute. The staff can avail transport facility free of cost simply by registering for the same.

*Maintenance:* The motor mechanic performs daily maintenance and servicing of the buses and light motor vehicle.

## 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:** 73.59

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

2016-17	2015-16	2014-15	2013-14	2012-13
1479	1864	1699	1278	949

#### File Description

#### 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:** 10.85

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

2016-17	2015-16	2014-15	2013-14	2012-13
382	316	222	221	0

#### 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	<a href="#">View Document</a>
Link to Institutional website	<a href="#">View Document</a>

#### **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:** 36.41

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

2016-17	2015-16	2014-15	2013-14	2012-13
1245	1464	1187	124	1

File Description	Document
Number of students benefited by guidance for competitive examinations and career counselling during the last five years	<a href="#">View Document</a>

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

**Response:** 0.87

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

2016-17	2015-16	2014-15	2013-14	2012-13
45	28	17	1	1

<b>File Description</b>	<b>Document</b>
Details of the students benefitted by VET	<a href="#">View Document</a>

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

**Response:** Yes

<b>File Description</b>	<b>Document</b>
Details of student grievances including sexual harassment and ragging cases	<a href="#">View Document</a>

## 5.2 Student Progression

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

**Response:** 9.35

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

2016-17	2015-16	2014-15	2013-14	2012-13
58	44	61	42	9

<b>File Description</b>	<b>Document</b>
Details of student placement during the last five years	<a href="#">View Document</a>
Self attested list of students placed	<a href="#">View Document</a>

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

**Response:** 2.26

5.2.2.1 Number of outgoing students progressing to higher education

Response: 16

<b>File Description</b>	<b>Document</b>
Details of student progression to higher education	<a href="#">View Document</a>

**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/ TOFEL/ Civil Services/State government examinations)**

**Response:** 100

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

2016-17	2015-16	2014-15	2013-14	2012-13
4	6	2	4	1

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

2016-17	2015-16	2014-15	2013-14	2012-13
4	6	2	4	1

**File Description**

**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:** 12

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

2016-17	2015-16	2014-15	2013-14	2012-13
1	1	3	5	2

File Description	Document
Number of awards/medals for outstanding performance in sports/cultural activities at national/international level during the last five years	<a href="#">View Document</a>

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

#### Response:

The college has an active '*College Students Council*' established since 2012 and is as per the requirement stated in Section 99 (1) of the said Maharashtra University Act (MUA), 2016 (then MUA, 1994). The constitution of the student council is in accordance to Section 99(2) of the MUA, 2016 and consist of:

- Principal – as the ex-officio President,
- One teacher (preferably Student Welfare Officer) as coordinator of the Students' Council,
- NSS Programme Officer (as a permanent invitee),
- Director, Sports and Physical Education (as a permanent invitee),
- One student from each class engaged (nominated by the Principal),
- One student each from (a) Sports, (b) National Service Scheme, (c) and Cultural activities (nominated by the Principal)
- Two girl students (nominated by the Principal).

Of the students from the last two criteria, two representatives belonging to Scheduled Castes or Scheduled Tribes or De-notified Tribes (Vimukta-Jatis) or Nomadic Tribes or Other Backward Classes, are nominated by Principal from students who are engaged in full time studies in the college.

The students' council is engaged in organising programs / activities which serve the educational, extra-curricular, cultural, recreational and social interests of the students. There are two major events in a year that are planned and executed by the students, viz., Astitva and Technofest. Astitva is an annual cultural and sports event, whereas Technofest is a national level technical event held annually. In both of these events, the students are involved in activities like preparing promotional material, promoting the event to their peers from others technical institutes, planning and preparation of activities like individual personality assessment, debates, sports and cultural events, funfair, art gallery, paper presentations, quizzes, project exhibition and various technical competitions. The students are guided by the concerned faculty coordinator or committee head as well as Head of Department and Principal. Through these activities, students get an opportunity to enhance their leadership abilities, organisation skills, intrapersonal and interpersonal communication skills, service attitude (volunteering), etc. that leads to a holistic development of their personality.

Apart from the Student Council, there are other academic and administrative bodies and department student chapters / associations where students are also actively involved as office bearers / members.

- Alumni Cell
- Anti-Ragging Committee
- SKH Art Club

- Sports Centre
- Internal Complaints Committee
- Hostel Monitoring Committee
- National Service Scheme
- Innovation Centre
- Student Grievances Cell
- Competitive Exam Cell
- Institute News Letter Committee
- Training & Placement Cell
- Entrepreneur Development Cell
- Canteen / Food Committee
- Students Association for Mechanical, Civil, Electrical, Computer, E&TC Engineering
- Student Chapters of Professional Societies like, IETE Students Forum (ISF), IEEE Students Chapter, SAE INDIA Students Chapter and Computer Society of India
- All organizing committees for seminars, conferences and workshops conducted for students by the institute
- Earn and Learn Scheme of Savitribai Phule Pune University.

File Description	Document
Link for Additional Information	<a href="#">View Document</a>

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

**Response:** 19.4

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

2016-17	2015-16	2014-15	2013-14	2012-13
19	19	20	21	18

File Description	Document
Number of sports and cultural activities / competitions organised per year	<a href="#">View Document</a>

## 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:**

The first batch of students graduated in the year 2012 – 13. Immediately in the next year, the college initiated the activity of establishment of alumni association. For this, the Principal has constituted a committee which comprises of a President, Working President, Vice President, Secretary, Joint Secretary, Treasurer, Dean Alumni Affairs and Alumni Members. In order to maintain the liaison between the alumni and existing students the committee had decided to conduct at least one alumni meet per year. Based on this resolution the institute organizes alumni meet every year. The alumni association was latter registered with the Charity Commissioner of Nashik under the Registration of Societies Act and now has a legal standing (Reg. No. F16759 & date 08/11/2016).

The alumni association promotes and fosters mutually beneficial interaction between the alumni and the institute. The Head of various Departments, faculties and staff are in constant touch with the alumni through e-mail and social media. Alumni association is contributing in the long-lasting interest and development of the institute as below:

- *Expert lectures:* The institute has developed a practice to invite alumni on regular basis to deliver expert talks and share their experiences.
- *Industrial visit:* For many programs, industrial visits are part of curriculum. So as to give the exposure of industrial environment and to meet curriculum requirement institute seeks the help of working alumni's in various industries.
- *Support for project work:* Alumni helps the existing students for the selection and sponsorship of their final year industrial project.
- *Evaluation of student projects:* Institute motivates the practice of involving the alumni's for the evaluation of student projects.
- *Support for internship:* The alumni's help in identifying suitable industry for internship of the existing students.
- *Groom students through training and placement activities:* The Alumni Association in collaboration with the Training and Placement Cell have initiated a number of activities for the grooming and placement of the students.
- *Provide guidance for higher education in foreign institutes:* The alumina's who are pursuing the higher education in abroad or reputed institutes help the existing interested students.

*Alumni feedback:* Continuous feedback from the alumni's help the institute to improve the teaching-learning process, placement and support offered to the students.

**5.4.2 Alumni contribution during the last five years****<1 Lakh****1 Lakh - 3 Lakhs****3 Lakhs - 4 Lakhs****4 Lakhs - 5 Lakhs**

**Response:** <1 Lakh

<b>File Description</b>	<b>Document</b>
Alumni association audited statements	<a href="#">View Document</a>

**5.4.3 Number of Alumni Association / Chapters meetings held during the last five years****Response:** 7**5.4.3.1 Number of Alumni Association /Chapters meetings held year wise during the last five years**

2016-17	2015-16	2014-15	2013-14	2012-13
2	2	2	1	0

<b>File Description</b>	<b>Document</b>
Number of Alumni Association / Chapters meetings conducted during the last five years.	<a href="#">View Document</a>

## 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:**

***Institute vision:***

*To become globally recognized engineering institute through innovation, research and quality education.*

***Institute Mission:***

*To become a leading technical institution by achieving excellence in teaching-learning process and providing an environment helpful for nurturing innovation, creativity, team spirit, moral ethics and leadership for the welfare of the society.*

The institute follows a collective model of governance with various stakeholders participating in the decision making process for achieving the institute's vision and mission. Such a model ensures transparency and accountability due to participation of stakeholders in the decision making process.

Teacher is one of the most important stakeholder of any educational institute. Therefore, we ensure the participation of teachers in policy making and decision making bodies to achieve the institute's vision and mission.

The teachers are members of local management committee which is one of the top decision making body of the institute. The teachers are also members of the IQAC which has been established to ensure progressive performance of academic, administrative and financial tasks. Apart from these two important bodies, the teachers are members of Research advisory committee, Library advisory committee and Department advisory board which are play major role in the policy making of the institute. As per the requirement of statutory regulatory authority, the teachers are members of mandatory cells / bodies like, Staff grievance cell, Reservation (SC / ST) cell, Minority cell, OBC cell, Staff welfare committee, Internal complaints committee and Anti-ragging committee. Being a member / coordinator of the bodies, the teacher is empowered to implement various activities for supporting institute's vision and mission.

In order to achieve the institute's vision and mission, the Principal in consultation with the management has formulated perspective as well as strategic plans.

Following are the perspective plans:

- Promote students' progression to higher education and self-employment
- Enhance students' training and placements
- Train students to inculcate values of moral and professional ethics
- Promote use of technology in all academic and administrative processes
- Apply for accreditation from agencies like NAAC and NBA
- Apply for quality certification from organizations like ISO

- Increase research grant from agencies like AICTE, DST, ISTE, IEEE, BCUD, IET, etc.
- Imbibe research culture for improving copyright and patenting activities
- Host national level seminars / workshops / and conferences
- Increase MoUs and strengthen collaborative activities with industries and institutes
- Initiate Consultancy services
- Infrastructure and IT facilities augmentation as per requirements by regulatory bodies
- Tie-up with international universities
- To increase awareness of students about green practices, waste management, cleanliness, water conservation and rain water harvesting for the welfare of the society.

File Description	Document
Link for Additional Information	<a href="#">View Document</a>

### 6.1.2 The institution practices decentralization and participative management

#### Response:

The institute has established a simple yet robust organization structure for decentralisation of its daily decisions and operations. The organisation structure originates from the Management and is assisted by the Governing Body and Local Management Committee in finalising policies, strategies and decisions. The responsibility of implementation of policies, strategies and decisions lies with the Principal who is also a part of the Governing Body and Local Management Committee. The authority for implementation of policy and strategy based decisions are delegated by the Principal to various Deans, Department Heads and Section Heads. These authorities further empower the cell / committee / bodies coordinators for implementation of policy and strategy based decisions. Such delegation of authority not only empowers the subordinates, but also relieves the decision making burden of the Principal while ensuring efficiency in decision making process. Such a practice of decentralisation also helps the institute to prepare for emergencies and provides ease for expansion of activities if necessary.

Along with delegation of authority, the institute through its organisation structure has ensured involvement of almost all level of employees in the decision making process related to academics, administration and finances. The stakeholders are able to voice their opinion about their current needs. This has given a sense of autonomy to the employees with increased job satisfaction and level of commitments. It thus makes the employees feel more responsible for their actions and they see themselves as stakeholders of the institution.

The organisation of '**TECHNOFEST**', a '*National Level Technical Symposium*' in the institute can be well used to demonstrate the institutional practice of decentralisation of authority and participation of employees and students. This mega technical event collectively hosted by all departments attracts more than 1000 participants and integrates all level of employees as well as students to work as a team demonstrating decentralisation and participative management. This event is attended by participants from various districts of the state. Each department of the institute organises three events. In the structural setup of this event, each technical activity is managed by student volunteers. These volunteers report to the staff coordinator who in turn reports to the concerned Head of Department. The planning and budgeting for each technical activity is an outcome of combined efforts by the students and faculty. The head of department

reviews the same and forwards it to the Head of Institute. The Head of Institute also reviews the same and seeks approval from the Management. Through this event, the students are exposed to an environment whereby they develop an ability to function independently and are closely supervised by the faculty while being supported by the higher authorities, thus giving them a sense of involvement. The faculty are also able to autonomously initiate activities to ensure success of their individual event.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

## 6.2 Strategy Development and Deployment

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

#### Response:

**Strategic Plan:** Promote activities for enhancement of faculty profile

Of the many strategic plans, enhancement of faculty profile is in one of the major area in which the institute would like to strengthen itself in the benefit of the students and the institute. Accordingly, a number of measures for the same have been undertaken and are as follows:

- 1.Sponsorship for Higher Education:** The institute faculties are encouraged for pursuing higher studies like PhD. The faculties are granted study leave and a well defined policy exist for providing financial support to the concerned faculty during the period of deputation.
- 2.Teaching with Technology:** In order that the teaching by the faculty be effective, the institute through its IQAC has developed a systematic course delivery plan through which faculties are encourage to use modern teaching learning aids/tools.
- 3.Handling New Curriculum:** The institute deputed faculties for syllabus revision and implementation workshops organised by affiliated institutes of affiliating university. The faculties are also provided with duty leave and financial assistance for traveling and registration fees.
- 4.Participation in faculty development programs, etc.:** The faculties are encouraged to participate in STCs / STTPs / FDPs arranged by reputed institutes like IITs, NITs, Government Engineering Colleges and those sponsored by AICTE / ISTE, etc. The faculties are also provided with duty leave / financial assistance for traveling / registration fees, etc.
- 5.Organisation of faculty development programs, etc.:** The institute has encouraged its faculties to organise workshops / guest lectures / faculty development programs for the academic enrichment of the faculties. These events are either sponsored or self-financed.
- 6.Availability as resource person:** The institute has entered into MoUs with various institutes and industries where its faculties can share their knowledge as resource person. In this case, the faculties are provided with duty leave.
- 7.Membership of Professional Bodies:** The institute motivates faculties to be member of local, national, international, professional bodies and societies. The institute has also financially supported many of the faculties in the membership drive.

**8.Promotion of Research Culture:** The institute being conscious of the impact of research on teaching quality has established a 'Research Advisory Committee', an 'Innovation Centre' and 'Research Journal Publication Committee' to promote research culture among its faculties and students. The faculties are provided with duty leave and financial assistance for publishing research articles in national / international conferences. They are also encouraged to publish articles in peer review journals.

**9.Funding for Research Activities:** The institute motivates faculties to apply for research grant to various funding agencies like BCUD, DST, ISTE and AICTE. The institute has also provided financial support for purchase of research equipment. The institute through its NPTEL Local Chapter has made available significant amount of e-material suitable for research activities.

**10.Extension Activities:** The institute also ensures participation of faculties and staff in extension activities like tree plantation, swachata abhiyan, blood donation, etc. for the benefit of society and country.

File Description	Document
Strategic Plan and deployment documents on the website	<a href="#">View Document</a>

### 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:

The organisational structure of Late G N Sapkal College of Engineering like most other higher educational institute is a vertical one with power emanating from the top down. This structure helps one in understanding the relationship between the institute and the Management as well. A well-defined chain of command exist in the structure with each individual reporting to the person directly above them in the structure. Each person is assigned a set of responsibility in accordance to the area of work allotted to them in addition to the responsibilities gained by them by virtue of their cadre.

The Board of Trustees also called Management is at the top of the structure. The Management is assisted by the Governing Body and Local Management Committee, which are formed in accordance to the rules set by statutory regulatory authorities, in decision making of various academic and administrative requirements. The Trustees and Principal are members of the Governing Body and Local Management Committee. The Principal acts as a bridge between the management and the employees and is assisted by a core team which comprises of Deans, Head of various Departments and IQAC Coordinator in implementing and monitoring the perspective and strategic plans to achieve the institute's vision and mission. The Deans are assigned the responsibility of mentoring various cells / bodies / committees which comprises of the teaching staff, non-teaching staff and students as per the need. The various committee coordinators are responsible for ensuring proper functioning of their committee by involving each member through a defined role. The Head of Departments are responsible for implementation of the academic curriculum and administration of his department with the support of the teaching and non-teaching staff. The Head of Departments are also empowered to implement various supporting activities for the overall development of the students.

The code of conduct, which includes service rules and operating procedures of the institute, is defined by the management and communicated through its service manual to all employees.

For recruitment of employees, the institute follows the rules, regulations and guidelines stipulated by Savitribai Phule Pune University, Pune, AICTE, New Delhi and Reservation Cell of Government of Maharashtra. The institute appoints faculties based on recommendations of the Staff Selection Committee approved by the affiliating university. Even for the appointment of temporary staff, the Principal formulates a Selection Committee which constitute members from Dean, Head of Department and Senior Faculties.

The promotion of each individual is carried out through a performance appraisal system which assesses them based on his/her academic engagement and outcomes in terms of examination result, student feedback, research contribution, involvement in university work, participation in institute activities, participation in professional activities and self-improvement initiatives.

The institute has established various cells like Internal Complaints Committee (ICC), Committee for SC / ST (Reservation Cell), Minority Cell, OBC Cell, Staff Grievances Cell and Student Grievances Cell for addressing the grievances of various stakeholders. The stakeholders have been made aware of the various grievances redressal cells and their operating mechanism.

File Description	Document
Any additional information	<a href="#">View Document</a>

**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	<a href="#">View Document</a>
Details of implementation of e-governance in areas of operation Planning and Development,Administration etc	<a href="#">View Document</a>
ERP Document	<a href="#">View Document</a>

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

##### **Response:**

Institute has established '*Staff Welfare Committee*' to review and make recommendations on matters relating to staff welfare including compensation, benefits, health and safety, quality and equity of work issues in the inception year 2009-10.

Staff welfare committee constitutes members from all the cadres, viz., Principal as Chairman, Head of all departments, Registrar works as Coordinator, two Assistant Professor as members, two Technical Assistant as members, one Clerk from administration as member and one Office Attendant as member.

The involvement of people from all cadres strengthens the committees all round approach in rendering transparency in action. Various welfare measure for the staff are invited and subsequently discussed. All members express their opinions for the welfare of employees during the meetings. The committee meets twice a year.

In one of meetings held on 09/02/2010, following two points in the benefit of the staff were discussed and agreed upon by the members present:

1. As Institute is situated in a remote location away from the city, the institute should provide logistic support (free transportation) to all the employees.
2. The institute should also provide free uniform to all the employees.

These points were then proposed by the Principal in front of the Management for approval. Even after reviewing the financial implication on the institute in long term, the suggestions were graciously accepted by the Management. Even today, the policy of free transportation and free uniform to employees is in force.

In another meeting of the staff welfare committee held on 19/01/2011, suggestion for 'free residential facility for Class – IV employees in the campus' was made. Also suggestions for financial assistance and duty leave to teaching faculties for 'higher studies', 'to attend seminar, workshops and conferences' and financial assistance for 'membership of reputed bodies such as IEEE, ISTE, IETE and CSI' were made. These suggestions were then proposed in front of Management for approval. After review, the management granted its approval to the above made suggestions.

In due course of time, the employees' welfare committee has made suggestions for numerous academic, financial and health welfare measures. Some significant suggestions are:

- Establishment of 'Employees' Credit Society'
- Financial concession to the children of employees studying in the institute.
- Organisation of health camp for all employees, etc.



File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

## 6.3 Faculty Empowerment Strategies

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

#### Response:

The Management of Kalyani Charitable Trust has implemented a number of academic, financial and health welfare measures for the benefit of the employees of Late G. N. Sapkal College of Engineering since establishment of the institute, i.e. AY 2009-10. These welfare measures are listed as below:

#### *Academic welfare measures*

1. The institute provides facilities like casual leave (CL), medical leave (ML), earn leave (EL) and vacations to all eligible staff as per university norms.
2. The institute appreciates employees for their exemplary achievements in academic and non-academic activities.
3. The institute deposes faculties to attend conferences / workshops.
4. The institute organises various professional development / administrative training programs for teaching and non-teaching staff.
5. The institute encourages its teaching faculties for higher studies by providing necessary support.

#### *Financial welfare measures*

1. The institute provides financial support to attend conferences / workshops and membership fee of professional bodies.
2. The institute has provided free residential facility for Class-IV employees in the campus.
3. The institute provides free transportation facility to all non-residential employees.
4. The institute also provides uniform to all employees.
5. The institute deducts provident fund (PF) of all eligible employees and also contributes equal amount in their PF account.
6. The institute has established a cooperative society named '*Sapkal Knowledge Hub Shikshak va Shikshaketar Karmachari Sahakari Pathsanstha*' to handle financial emergency of its employees. This credit society is run by the institute employees.
7. The institute provides financial concession to the children of employees studying in this institute.

#### *Health welfare measures*

1. The institute provides Maternity Leave as per norms to all eligible employees.
2. The institute organises health camp for all the employees.
3. The institute provides immediate fund to employees in case of Medical Emergency.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### 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:** 22.29

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

2016-17	2015-16	2014-15	2013-14	2012-13
49	42	65	16	10

File Description	Document
Details of teachers provided with financial support to attend conferences,workshops etc. during the last five years	<a href="#">View Document</a>

### 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:** 2.2

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

2016-17	2015-16	2014-15	2013-14	2012-13
5	4	1	1	0

File Description	Document
Details of professional development / administrative training programs organized by the Institution for teaching and non teaching staff	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

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

**Response:** 31.96

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

2016-17	2015-16	2014-15	2013-14	2012-13
88	67	46	26	29

File Description	Document
Details of teachers attending professional development programs during the last five years	<a href="#">View Document</a>

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

**Response:**

Performance appraisal, which is considered as one of the most important practices for human resource management, exist in our institute. This appraisal system seeks to incorporate accountability and improvement in the employees by documenting their performances to provide information and justification for compensation, promotion, and sometimes disciplinary actions. The institutional appraisal framework assesses a faculty based on his/her academic engagement and outcomes in terms of examination result, student feedback, research contribution, involvement in university work, participation in institute activities, participation in professional activities and self-improvement initiatives.

The non-teaching technical staff are assessed for their job performance which includes engaging students in laboratory and participation in administrative work at institute and university level. They are also assessed for efforts taken for self-improvements and professional engagements. The administrative staff are not only assessed for their job performance but also for efforts taken in gaining computer literacy and participation in skill enhancement activities. The class four employees are assessed for their job performances, knowledge enhancement and any exceptional contribution to the institute.

At the end of academic year, i.e., in the month of May / June all employees submit their self-appraisal to their respective section / department head. The section / department head reviews the self-appraisal sheet of the individual employee and forwards it to the Principal. The Principal reviews and recommends the appraisal of the employee to the Management for their final approval. The appraisal system advocated is transparent and allows the employee to understand his/her strength and weakness and provides scope for the employee to work on his/her limitation before being subjected to disciplinary actions. This system thus ensures academic development of faculties, keeps them motivated so that the students are the ultimate beneficiary. This system helps the management to inform the employees about how they are perceived in the organization.

File Description	Document
Any additional information	<a href="#">View Document</a>

## 6.4 Financial Management and Resource Mobilization

### 6.4.1 Institution conducts internal and external financial audits regularly

#### Response:

The institutes prepares its financial statements, viz., 'Income and Expenditure Account' and 'Balance Sheet', in accordance to 'accounting standards' laid down by the Institute of Chartered Accountants of India. This Income and Expenditure account which is prepared from 'Receipts and Payments Account' reflects the deficit/surplus resulting from the activities carried out by the institute during a financial year. The balance sheet reflects the state of asset and liabilities as on the date of balance sheet. The institutions calculates the cost of depreciable asset over its useful life and accordingly charges depreciation to the income and expenditure account.

The institutes carries out internal audit every six months for appraisal of its operations and evaluation and monitoring of risk management, reporting and control practices. The institute also carries out external audit on an yearly basis (from beginning of April to the end of March of the subsequent year) to ensure compliance with all applicable revenue rules, catching small problems before they become serious, provide more credibility to the institute's financial statements and critique institutes internal processes.

In both cases of audit, objections have found to be raised. The institute has a mechanism for settling such audit objections.

- Generally, these objections are raised in the form of queries or memos directed to the accountant for information on various issues.
- All such objections "Memos" received from the auditor are attended promptly and replies are sent within a limited time period.
- All replies to audit memos are given only after approval by the appropriate /competent authority.
- At the end of the audit, the auditor generally discusses with the Principal before finalizing his Inspection Reports.
- The Principal ensures whether all relevant materials have been made available to audit in order to enable them to bring out the full facts of each case in the Inspection Report.
- Finally, the auditor prepares certified 'Income and Expenditure Account' and 'Balance Sheet Statement' and submits the same to the Principal and Management.

File Description	Document
Any additional information	<a href="#">View Document</a>

### 6.4.2 Funds / Grants received from non-government bodies, individuals, Philanthropists during the

**last five years (not covered in Criterion III)****Response:** 64.17

6.4.2.1 Total Grants received from non-government bodies, individuals, philanthropists year wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
14.30	10.2178	20.404	10.25	9

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

The college has a well formulated financial policy which ensures availability as well as effective and optimal utilization of finances for academic, administrative and development purposes. The major source of funds for the institute is students' fees which is received directly from the students or from the government agencies in terms of scholarships. Grants received from funding agencies like, AICTE, DST and affiliating university, etc., serve as a supplementary source of funding. The balance amount is managed from Kalyani Charitable Trust or through bank loan.

The institute has a simple yet robust mechanism as described below to ensure optimal utilisation of the resources:

- The budget for the forthcoming year is prepared well in advance by each department in accordance to its need like, purchase of new equipment, computers, consumables, semi-consumables, etc. and submitted to the Principal for approval.
- The accounts department then prepares the institute's budget considering salary heads and non-salary heads like maintenance, housekeeping, promotional activities, electrical expenses, etc., including the departmental requirements.
- The institute's budget is then submitted to the management for review and approval.
- Based on the priorities of the institute and various departments, the funds are made available by the management.
- For day to day monitoring and control of cash, fund availability and utilisation statement is maintained by the institute.

Funds and grants received under the National Service Scheme, university examination, student welfare scheme, quality improvement program and major and minor research projects are utilised as per the guidelines of the funding agencies.

**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:**

The internal quality assurance cell (IQAC) has been established with the objectives of improving the academic and administrative performance of the institute and promoting of measures for enhancement and assurance of quality through internalization of quality culture and institutionalization of best practices. Following two activities introduced by the institute have now been institutionalised by the IQAC as quality assurance measures:

**NPTEL Online Courses and Certification:** The institute has established a local NPTEL chapter with the objective of self-assessment of faculties and students through NPTEL online courses. The participant is engaged in learning the course through video lectures. They can participate in the weekly discussion forums and seek answers to their queries. They have to submit their course assignments which may consist of programs or MCQs or objective questions on weekly basis. Candidates successfully qualifying the examination after completion of the course are certified with a tag. So far, 402 students and faculties have enrolled for various courses and 16 have successfully completed and certified. One faculty has been certified as a mentor.

**Online Mock Test:** The institute is one of the 62 members in the state of Maharashtra for the online education scheme offered by the 'Myexamo' portal. This scheme assesses the students through online mock test for various courses of engineering and technology. The portal is a repository of multiple choice questions that have been uploaded by the institute faculties. The faculties can also avail access to question bank uploaded by faculties of other institutes and make them available to his/her students. All these questions are available to the students who are registered users of the portal. Each student can appear for an online exam generated by the concerned course instructor or can solve each question individually. The test result is made available to the students by the concerned course instructor.

Both of these practices help the students to develop better understanding of the courses under study and improvement of their performance in the university examinations.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

### 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:**

The institute has set up an academic monitoring committee to continuously monitor the conduction of the lectures and practical. After establishment of the IQAC, a review of teaching-learning process was done based on two aspects, viz., review of the activities performed by faculties and non-teaching technical staff in consonance to their responsibilities and review of the methods by which faculties, departments and the institute works to continuously improve teaching quality and assure themselves that the activities are

appropriate and well executed.

Although consciously working on improving performance indicators like number of enrolments, number of faculties, deputation of faculties for FDPs, STTPs, STCs, etc., it was felt that these indicators were too crude to ensure quality in the teaching-learning process. More refined approach like assessment and accreditation followed by process review for quality assurance was the answer. With the help of this review, the IQAC suggested a couple of teaching-learning reforms that were hand in hand with the objectives of assessment and accreditation process.

One such initiative is the establishment of 'Teaching Learning Development Cell (TLDC)' with the purpose of adopting the best teaching-learning practices for all round development of the students and enhancement in teaching quality of the faculties. Through the TLDC, the institute introduced following reforms in the teaching learning process:

- The conventional teaching-learning approach was converted into an outcome based approach. Each department defined their course outcomes, program outcomes and program specific outcomes. This helped the faculties to develop more clarity in their teaching plans and usage of teaching methodology. All these initiatives resulted in a well prepared course file by all faculties. The student also are now aware of their specific learning goals.
- The teaching-learning process is now student centric with introduction of various active teaching tools in addition to the passive teaching tools. These tools also serve the purpose of attaining learning outcomes of each course defined in accordance to Blooms taxonomy. Tools like GDs, debates, quizzes, peer teaching, assignments, lab work, internship, think-pair-share, etc., are now part of regular teaching process.
- Teachers are now resorting to various sources like NPTEL and Khan Academy for video lectures as a part of their course material.
- Teachers also have been encouraged to adopt ICT tools for communication and sharing of course material.

Another initiative by the IQAC is establishment of 'Survey Collection Centre' for collection and analysis of feedback from all the stakeholders. This centre is the core of the institutional review process and ensures quality assurance of the teaching-learning process through various stakeholders' feedback. Following is the contribution of the centre:

- Development of rubrics for feedback from all stakeholders, i.e. students, faculty, alumni, employer, parents and management,
- Development of rubric for feedback of faculty by students,
- Development of rubrics / survey sheets for course exit and program exit,
- Development of rubrics for analysis of feedback from all stakeholders.

Based on these reforms, a revised curriculum implementation model has also been developed and the teaching-learning process is now monitored through this model.

File Description	Document
Any additional information	<a href="#">View Document</a>

**6.5.3 Average number of quality initiatives by IQAC for promoting quality culture per year****Response:** 0**6.5.3.1 Number of quality initiatives by IQAC for promoting quality year-wise for the last five years**

2016-17	2015-16	2014-15	2013-14	2012-13
0	0	0	0	0

File Description	Document
Number of quality initiatives by IQAC per year for promoting quality culture	<a href="#">View Document</a>
IQAC link	<a href="#">View Document</a>

**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:** C. Any 2 of the above

File Description	Document
Any additional information	<a href="#">View Document</a>
Details of Quality assurance initiatives of the institution	<a href="#">View Document</a>
Annual reports of institution	<a href="#">View Document</a>



### **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:**

The institute had undertaken a number of qualitative initiatives in the academic and administrative domain since last five year for its incremental improvements. The establishment of IQAC strengthen the cause of these following initiatives:

***Conduction of expert talks, seminars, workshops and conferences:*** The institute has developed a practice of organising expert talks, seminars, workshops and conferences at national and international level in the academic interest of the faculties and students.

***Deputation of faculties for attending seminars, workshops and conferences:*** The institute deposes its faculties to participate in STCs / STTPs / FDPs arranged by reputed institutes like IITs, NITs, Government Engineering Colleges and those sponsored by AICTE / ISTE, etc.

***Deputation of faculties for higher studies:*** Faculties have been encouraged to take up doctoral studies in institute of repute so that they will be exposed to a qualitative culture of academics and research. A special policy has been formulated in this regards and so far two faculties have completed the doctoral degree while another three are in process.

***Reforms in teaching learning process:*** The institute motivates its faculties to use modern aids for teaching and online tools for self-assessment. The established feedback collection centre also helps for improvement of teaching learning process.

***Establishment of innovation centre:*** The innovation cell has been established to provide a platform to students for generation of knowledge.

***Enhancing student participation:*** The institutes motivates its students to participate in various national and international technical competitions to showcase their talent. The institute also organises a national level technical symposium annually.

***Entrepreneurship development cell:*** This cell is a part of the innovation ecosystem and serves to groom up students as potential entrepreneurs. This effort has resulted in more than 60 successful entrepreneurs.

***Establishment of institute-industry and institute-institute interaction cell (I5C):*** In order to bridge the gap between the industry expectations and teaching outcomes, the institute has established I5C. This cell helps the students for sponsored projects, internship trainings and industrial visits.

***Establishment of NPTEL Local Chapter:*** The institute has established a NPTEL local chapter with the objective of self-assessment of faculties and students through NPTEL online courses. This helps the students to develop better understanding of the courses under study and improvement of their performance in the university examinations.

***Establishment of Student Chapters:*** Over the years the institute has promoted establishment of various student associations at department level and student chapters of professional societies like, IETE Students

Forum (ISF), IEEE Students Chapter, SAE INDIA Students Chapter and Computer Society of India (CSI) to provide platform for holistic development of the students.

***e-governance and paperless office:*** To improve administrative efficiency, the institute has implemented the concept of e-governance through ERP software usage. The institute also ensures usage of mailing system for all types of internal communications.

***Grants for research and development activities:*** The institute encourages its faculties to apply for grants from various funding agencies for their qualitative development.

NAAC

## 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:** 9

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

2016-17	2015-16	2014-15	2013-14	2012-13
2	3	2	1	1

#### File Description

#### Document

List of gender equity promotion programs organized by the institution

[View Document](#)

Report of the event

[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:** In our institute, safety & security of all has always been a priority and special attention is given to safety of women. The institute has taken cognizance of this aspect right from the day of its establishment in following ways:

1. The institute has ensured that a sense of safety and security prevails in the minds of the women staff and students by presence of dedicated security personals. This security personals are headed by a retired army officer who has used his experience and available manpower to establish a sense of safety and security. Security persons are on guard at different locations 24 hours round the clock observing the students in common places like canteen, amphitheatre, cricket ground and institute main gate for any kind of misbehaviour.
2. The institute also uses modern electronic gadgets like CCTV camera for campus security and monitoring of any untoward incidents.
3. The institute has established the Internal Complaints Committee (formerly Women Grievances Cell) in July 2009. This committee addresses grievance of women (staff and students) through a well-defined mechanism.

4. The institute has also established other discipline monitoring cells like anti-ragging cell as well as student welfare board, discipline monitoring cell, hostel monitoring committee and student grievances cell. All these cells ensure that discipline prevails in the institute thus giving a sense of satisfaction to the concerned.
5. A full time matron is made available in the girl's hostel to address any kind of problem of the girl students.

**Counselling:** A teacher-guardian scheme has been incorporated in the institute for addressing academic as well as non-academic issues of the students. The role of the guardian teacher is to mentor the students individually to solve their academic and non-academic issues. In case, the guardian teacher is not able to address any issue of a student, he/she then share their critical observations about that individual student with the head of department who may then try to solve it or if necessary, roll it further, to a counsellor through the Head of the Institute. The institute has appointed a lady counsellor who helps them in addressing the psychological and physical issues of girl students. The institute has even appointed a full time medical practitioner and nurse for their medical care. Apart from solving individual problems, the institute also works towards sensitizing the students as well as staff on gender issues making them aware of the social, moral and legal implication associated with gender discrimination by organising gender equity sessions. The institute also encourages value education upholding gender equality, and also deals strictly with instances of sexual harassment on campus.

**Common Room:** This is a social space necessary for a healthy recreation and mutual contact among the students. The institute has made available common rooms for boys and girls as per the requirement. Recreational facilities are made available in the common room. The Principal has nominated staff members to manage the common rooms. Locker facility is also provided.

### 7.1.3 Alternate Energy initiatives such as:

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

**Response:** 19.71

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

Response: 69120

7.1.3.2 Total annual power requirement (in KWH)

Response: 350633

File Description	Document
Details of power requirement of the Institution met by renewable energy sources	<a href="#">View Document</a>

### 7.1.4 Percentage of annual lighting power requirements met through LED bulbs

**Response:** 67.5

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

Response: 77760

7.1.4.2 Annual lighting power requirement (in KWH)

Response: 115200

**File Description**

**Document**

Details of lighting power requirements met through LED bulbs

[View Document](#)

### 7.1.5 Waste Management steps including:

- **Solid waste management**
- **Liquid waste management**
- **E-waste management**

**Response:**

**Solid waste management:** The solid waste before disposal is categorised into degradable and non-degradable waste. The waste like remains of plants and kitchen waste are disposed by means of composting. Non-degradable waste like, plastic wrappers, sheets, etc., are collected at source by placing trash bins at suitable locations. This plastic waste is then disposed safely through a plastic recycling agency.

**Liquid waste management:** Although being situated in the hilly terrain with no support from the local government authorities, the institute disposes its liquid waste into the environment safely. A septic tank has been built to separate solid waste. The liquid waste is then discharged into a leach field where the dissolved solids are absorbed by soil and clear water then moves by gravity deep into the earth to rejuvenate the ground water level.

**E-waste management:** The institute has a centralized procedure to collect e-waste. The electronic gadgets that make up for the e-waste are written off and then collected centrally. They are sold to e-recycler for environmental friendly disposal. The institute has entered into a MoU with different agencies for the same. Components like resistors, capacitors, inductors, diodes, transistors, thyristors, etc., of the electronic gadgets are reused in laboratory demonstrations.

**File Description**

**Document**

Any additional information

[View Document](#)

### 7.1.6 Rain water harvesting structures and utilization in the campus

**Response:**

**Rain water harvesting:** Being situated in a hilly region, the institute has advantageously used its campus topology for harvesting rainwater. A retaining wall of height approximately eight feet has been built at the lowermost section of the campus in the valley part and ensures collection of rain water which has flown over from rooftops of buildings in the campus as well as from open space. The size of the pond created due to the retaining wall is 55 m × 49 m × 1.75 m. Thus, the water retaining capacity of this structure is approximately 4700 m<sup>3</sup> or 47 lac litres.

This stored water is used for the purpose watering plants in the garden through drip irrigation system and for vehicle cleaning. The presence of this structure has resulted in availability of excess water for garden usage and has also resulted in an increase in water table of the adjacent area.

File Description	Document
Any additional information	<a href="#">View Document</a>

**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:****Students, staff using**

- **Bicycles:** The institute has provided free bicycles in the campus for the residential students and staff.
- **Public Transport:** The institute has more than 30 buses for transportation. The students are charged reasonably and staff members are provided free transport facility to discourage them from using their own vehicles.

**Pedestrian friendly roads:** The internal roads in the campus are wide and clean, flanked with flower beds and have negligible vehicular movement.

**Plastic free campus:** Instructions are displayed at various locations so that the campus remains plastic free. The institute has also designed their own paper and cotton bags and motivates the faculty and students to use them instead of plastic ones.

**Paperless office:** ERP and mailing system are used for all types of communication. One side printed papers are used from the other side for draft work and students have been strictly instructed to use both

sides of the paper for all kind of work.

**Green landscaping with trees and plants:** The campus has significant greenery covering all over and is maintained by a team of around 50 gardeners. All these efforts have been honoured by the Government of Maharashtra with 'Chatrapati Shivaji Maharaj Vanashree Award'.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

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

**Response:** 0.32

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)

2016-17	2015-16	2014-15	2013-14	2012-13
0.68	4.07	2.62	3.07	2.14

File Description	Document
Details of expenditure on green initiatives and waste management during the last five years	<a href="#">View Document</a>
Green audit report	<a href="#">View Document</a>

### 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:** C. At least 4 of the above

File Description	Document
Any additional information	<a href="#">View Document</a>
Resources available in the institution for Divyangjan	<a href="#">View Document</a>

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

**Response:** 55

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

2016-17	2015-16	2014-15	2013-14	2012-13
11	11	11	11	11

File Description	Document
Number of Specific initiatives to address locational advantages and disadvantages	<a href="#">View Document</a>

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

**Response:** 31

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

2016-17	2015-16	2014-15	2013-14	2012-13
5	7	8	6	5



File Description	Document
Details of initiatives taken to engage with local community during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

<b>7.1.12</b> <b>Code of conduct handbook exists for students, teachers, governing body, administration including Vice Chancellor / Director / Principal /Officials and support staff</b>	
<b>Response: Yes</b>	
File Description	Document
URL to Handbook on code of conduct for students and teachers , manuals and brochures on human values and professional ethics	<a href="#">View Document</a>

<b>7.1.13 Display of core values in the institution and on its website</b>	
<b>Response: Yes</b>	
File Description	Document
Any additional information	<a href="#">View Document</a>
Provide URL of website that displays core values	<a href="#">View Document</a>

<b>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</b>	
<b>Response: Yes</b>	
File Description	Document
Details of activities organized to increase consciousness about national identities and symbols	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

<b>7.1.15 The institution offers a course on Human Values and professional ethics</b>	
<b>Response: No</b>	
<b>7.1.16 The institution functioning is as per professional code of prescribed / suggested by statutory bodies / regulatory authorities for different professions</b>	

**Response:** Yes

File Description	Document
Provide URL of supporting documents to prove institution functions as per professional code	<a href="#">View Document</a>

**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:** 13

File Description	Document
List of activities conducted for promotion of universal values	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

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

**Response:**

Yes, the Institution organizes national festivals and birth / death anniversaries of the great Indian personalities. National festivals like Republic Day (26th January), Independence Day (15th August) are celebrated every year with great pomp and vigour. The tricolour flag is hoisted and is followed by cultural events. Other festivals like Teachers day, Engineers day, Gurupournima are also celebrated. The students are briefed about the significance of these events in their personal lives and its need for the society. Birth anniversaries of national leaders like Chatrapati Shri Shivaji Maharaj, Rajamata Jijabai Bhosale, Father of nation Mahatma Gandhi, youth icon Shri Swami Vivekanand, Sardar Valabhbbhai Patel (National Unity Day), etc., are also celebrated in the institute. The institute also observes Yoga day, Constitution Day, Jal Din, Environment day and their importance is briefed to the staff and students. Such programs are organised every year and report of few of them are uploaded.

File Description	Document
Any additional information	<a href="#">View Document</a>

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

**Response:**

The institute has taken efforts to maintain transparency in all its dealing including financial, academic, administrative and auxiliary functions. The administrators, faculties and staff all exhibit ethical and responsible behaviour. The institute has incorporated transparency in all its policies, practices and procedures by using highest ethical standards.

**Financial:** A commitment to financial integrity and transparency is evidenced from the following:

- Financial statements are prepared in accordance to 'accounting standards' laid down by the Institute of Chartered Accountants of India.
- Budgetary and operational integrity is assured through the annual audit, conducted by internal and external auditors.
- There is a defined mechanism for the purchase of requirements which ensures involvement of concerned stakeholders,
- Staff salary is deposited in nationalised banks,
- Depending on the need of a particular course, the concerned faculty submits his requirement to the Head of Department. The latter then submits the same along with other requirements through the annual budget to the Principal. The Principal office then prepares the institute's budget and forwards it to the management for approval.

**Academic:** A commitment to academic integrity and responsible conduct is evidenced in many areas of the institute's academic operations. The affiliating university has also integrated courses on moral and professional ethics in the syllabus to brief the students about the same.

- Integrity of curriculum: The institute implements the curriculum prescribed by the affiliating university with utmost sincerity. This is evident from the teaching plan of each course.
- Academic dishonesty policy: The institute takes utmost efforts to ensure that the students exhibit moral and ethical behaviour in their academic quest. They are well briefed to abstain from practices like plagiarism, cheating / copying in examinations, copying of assignments and fabrication of experimental data or records.
- Role of faculty: The faculty members are strongly encouraged to brief the students in their classes about academic integrity and observance of ethical practices.
- Organisation of motivational talks: The institute arranges motivational talks based on moral and professional ethics for students.
- The mechanism like faculty feedback by students, parent feedback and alumni feedback, monthly assessment monitoring of teaching process by department head ensures transparency in academics.

**Administration:** A commitment to administrative integrity is evidenced from the following:

- The institute functions in accordance to the rules and regulations as prescribed by regulatory authorities like affiliating University, Directorate of Technical Education and AICTE, New Delhi.
- The appointment of faculties, promotion policies and service benefits are transparent,
- The institute protects the confidentiality of student information,
- The institute has ensured involvement of staff and students in various cells and bodies that are necessitated by the regulatory authorities.

**Auxiliary functions:** The institute also commits itself to many other important aspects among which following are significant:

- The institute has ensured safe and secure environment for the girls students and women employees and also works on promotion of gender equity,
- The institute has ensured fair representation to women employees in all academic and administrative activities,

The institute has established grievance redressal cells for women, employees, reserved category employees and students.

## 7.2 Best Practices

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

#### Response:

#### Practice – I: *Effective Teaching Learning System*

##### 1. Objectives:

- To prepare proper teaching plan
- Identify bridge courses and soft skills necessary to satisfy market requirements
- Ensure effective delivery of the contents as per the teaching plan using ICT
- Ensure the effective outcomes in terms of results and students satisfaction

##### 1. The Practice:

The teaching learning process has been implemented as below:

**Stage I:** This stage includes preparation of academic calendar, allotment of courses, preparation of course file, motivating faculties for usage of ICT tools and updation of individual ERP profile.

**Stage II:** In this stage, the academic monitoring committee ensures effective implementation of the curriculum, bridge courses and industrial visits. It also reviews monthly attendance records, Mid-term submission and conduction of class tests as well as need of remedial lectures based on result analysis.

**Stage III:** A mid-term feedback of students enables the institute to identify the grey areas in the teaching learning process. Corrective measures, such as counselling / mentoring of individual faculties are initiated by the Department Head.

**Stage IV:** Assessment of the term-work is done and marks are submitted to the university.

**Stage V:** The institute seeks feedback from various stakeholders regarding curriculum, employability and skill acquisition.

##### 1. Evidence of Success

- Improvement in the year wise performance of the students in terms of examination results.

- Improved the employability of the students.
- It has helped the faculties to improve their teaching.
- Improved the students' participation in extracurricular activities and competitions.

## Practice – II: Departmental Students Association

### 1. Objectives:

- To provide a platform for holistic development of the students.
- Organization of various cultural, sports and technical activities and competitions at state and national level.
- Establishment and functioning of various student chapters, bodies, cells and committees.

### 1. The Practice

- Each department of college has its own students association which function on the principle, 'of the students, by the students and for the students'.
- In the association, students work in different capacities as a part of executive body of the association which is formulated every year.
- The student associations then function under the guidance of the staff coordinator and head of department.
- Beginning from planning, budgeting to execution, all activities are an outcome of combined efforts by the students and faculties.

### 5. Evidence of Success

- The student associations organises '**TECHNOFEST**', a '*National Level Technical Symposium*' every year. This mega technical event is collectively hosted by all departments and attracts more than 1000 participants. The students association also jointly organises annual cultural fest '**ASTITVA**' which hosts various sports competitions, art gallery, funfair, cultural days. This event is attended by more than 8000 to 10000 people including students and their parents. Both events are planned, coordinated and executed by the students association.
- As per the requirement of curriculum and overall development of the students, the departmental associations organises various expert talks, workshops, seminars and industrial visits.

The student associations has in general contributed in enhancing the graduate attributes among students thus improving their employability.

File Description	Document
Any additional information	<a href="#">View Document</a>

## 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:

The field of engineering is dynamic and it is anticipated from engineers to develop themselves to work across various disciplines, with others, and continually adapt to new challenges. The budding engineers thus need to develop a number of qualities and skills to become an effective engineer with employability traits. The major concerns of most of the employers is finding good engineers and training them. The difference between the skills needed on the job and those possessed by applicants is called skills-gap, and is of real concern for all educational institutes and industries looking to hire competent engineers.

The institute has thus developed a practice to bridge the skill gap that exists within its students as follows:

- At the second year level, the university has introduced courses like soft skills, employability skills and development, industrial management, etc. For these courses, the institute has appointed professional trainers to improve the communication and writing skills of the students.
- At the third and final year level, the institute has introduced a one week training program for grooming students in aptitude, soft skills, interviews, group discussions and career counselling.
- In addition to this, the institute regularly organises expert talks, seminars and workshop on subject / themes like time management, risk management, skill development and motivational talks.
- Along with the academic, the institute also focuses on enhancing the technical skills of the students through conduction of bridge courses, expert talks, industrial training and visits. For this purpose, the institute has constituted the '*Institute-Industry and Institute-Institute Interaction Cell*'. This cell has collaborated with a number of industries in the form of MOUs and linkages. The institute is also a part of '*Pradhan Mantri Kaushal Vikas Yagna*' and runs courses for general public leading to employment.
- The institute motivates students to undertake internship and the final year project work in industry so that they become familiar with the industry culture and also enhance their employability probability.
- The faculties are encouraged to assign various verbal activities like debate, group discussions, oral presentations, poster presentations, to their students during their classroom teaching.
- The institute has encouraged the department to establish student associations / chapters / bodies for holistic development of the students. These bodies plan, coordinate and execute events that helps to improve their leadership qualities, team working, problem solving, confidence building, management skills, ethics and integrity.

All these aspects of skill enhancement have ensured higher employability of students as well as progression to higher education institutes of national and international repute.

## 5. CONCLUSION

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### **Additional Information :**

'Sapkal Knowledge Hub' is the manifestation of its founder Dr. Ravindra G. Sapkal who had a vision of creating a composite centre of learning where students will be groomed since their formative years. The Kalyani Charitable Trust has contributed in the field of education as well as social services. The work of the trust has been appreciated by a number individuals, societies, and government bodies. It has received 'Vrikshamitra Award' by the Government for its outstanding contribution in the environment programs and tree plantation drives. The Government of Maharashtra has bestowed the trust with the 'Chhatrapati Shivaji Maharaj Vanashree Purskar' in the year 2013. The chairperson was awarded as 'Lokmat Business Icons' of Nashik in 2014. He was also awarded as "Smart Shiledar Nashik" by Daily News Paper Sakal for the contribution in making Smart City Nashik through International & Technical Education development in Rural & Tribal area of Nashik District on 17th March 2017.

The Vice-chairperson, Mrs. Kalyani Sapkal has also been honoured with International Education Leadership Award 2015 by International Achievers Committee at the 7th International Achievers Conference held in Bangkok, Thailand. She received this award for her work in educational and social field.

The Trust carries out a number of social initiatives like extending financial support to Ramkrishna Arogya Sansthan and Shrimati Garda Balsadan Adhartirth Ashram. The trust creates health awareness by organising a Nashik marathon every year in association with Ambad Rotary Club, Nasik.

### **Concluding Remarks :**

The initiative of NAAC to submit the SSR online is one of the good step towards paperless work. The institute has found the new framework of assessment and accreditation to be very simple yet robust and has helped the institute in developing a quality conscious vision. To the best of our knowledge and understanding the report has been prepared and hopes to meet the expectations of NAAC committee for accreditation process.

Writing and submission of SSR is joint efforts and teamwork of all the staff of Late G. N. Sapkal College of Engineering and Management of Kalyani Charitable Trust. We are eagerly looking forward to welcome the Peer Team in the splendidly beautiful premises of Late G. N. Sapkal College of Engineering, Nashik.