

# **SELF STUDY REPORT**

**FOR**

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

**BAPURAO DESHMUKH COLLEGE OF ENGINEERING,  
SEVAGRAM**

AT - SEVAGRAM, TAH. DIST.- WARDHA  
442102  
[www.bdce.edu.in](http://www.bdce.edu.in)

Submitted To

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**

**BANGALORE**

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# 1. EXECUTIVE SUMMARY

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## 1.1 INTRODUCTION

Bapurao Deshmukh College of Engineering (BDCE), a self-financing college run by Yeshwant Rural Education Society, Wardha , approved by the All India Council of Technical Education, New Delhi and affiliated with Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur, is located in rural area at Sevagram, 8 Km away from Wardha City in Wardha district of Maharashtra. The College started with three branches of undergraduate courses thirty four years ago, and has grown to a multidisciplinary institution with 7 UG and 5 PG Courses in Engineering & Technology & 1 PG Course in Management and 4 Research Programmes leading to PhD through Research Centre recognized by the affiliating University. Importantly, with the direction from the well-known Social Worker and Ex. MLA , Mr. Suresh Bapuraoji Deshmukh , Chairman, Governing Body of BDCE and other well educated members of the GB of the College, the growth of the College has been well planned to excel and aimed to meet the technical and social needs and the growing academic interests of the student community.

### **Vision**

" Globally acceptable professionals satisfying technical and social needs"

### **Mission**

" Networking and Co-operation with global organizations by creating suitable environment in campus"

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

### **Institutional Strength**

1. Well Experienced and highly qualified Staff
2. One of the oldest self financing Engineering College established in Maharashtra State.
3. Recognition of UGC under section 2 (f) and 12 (B)
4. Recognized Centre for Higher Learning and Research for leading UG Courses in Engg. & Tech.
6. Permanent affiliation from RTM Nagpur University for all UG Programmes
7. Good support of worldwide spread Alumni
8. Good involvement of faculty in various bodies of affiliated University
9. In Receipt of various AICTE/UGC financial grants for research work

### **Institutional Weakness**

1. Non-availability of highly equipped research laboratories
2. Facility enhancement for exchange of faculty & students among institute of national repute
3. Facility of Incubation Center is not available
4. Even though on-campus placement record is consistent, there is enormous scope for achieving higher placement altogether there are limited number of core industries in the vicinity
5. Students are weak in English communication because of their primary education in vernacular language.
6. Geographical disadvantage as Institute located in industrially backward region
7. Low industrial consultancy in the branches other than Civil Engineering
8. Few patents filed till date
9. Industry Institution Interaction needs to be strengthened further. Faculty with industrial experience are less in number
10. Aptitude of the students for higher learning is poor

### **Institutional Opportunity**

1. Enhancement in entrepreneurship activities with the help of industries
2. Publication of own college National/International Journal
3. To explore benefits of funding agencies for strengthening laboratories with advanced research facilities
4. Ample space for collaboration with R&D Labs, Public Sector companies, Industries
5. Scope for Community Services
6. Innovations and creativities can be provoked through incubation cell
7. Mihan Project at Nagpur will bring many job opportunities for our students
8. Rapidly growing Indian economy will also strong opportunity to us

### **Institutional Challenge**

1. Less inclination of student in rural area towards pursuing higher technical education.
2. Paperless working
3. Employability efforts for slow learners
4. Mushroom growth of Engineering Colleges
5. Campus placement in core companies is in scarcity
6. Improvement in the quality of admitting students
7. Increased trend in migration of student population to metros
8. Retention of qualified and competent faculty
9. Coping with rapid changing in technology and the industrial requirements to improve the employability of the students are the biggest challenge for an Institution affiliated to an University

### **1.3 CRITERIA WISE SUMMARY**

#### **Curricular Aspects**

Bapurao Deshmukh College of Engineering is affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. The institute has well defined Mission, Vision and Quality Policy. The mission and vision statements are published on the website and in all published documents like brochures and displays. The college is a self-financing institution and follows the curriculum provided by the University. College faculties actively participate in the curriculum design by attending syllabus revision workshop organized by University. The faculty regularly attends FDP, workshops and training programmes to adopt the recent development in their field. The academic calendar issued by the affiliating University is followed for the planning and implementation of the action plan. The syllabus is completed as per University and students expectations. As the institute is affiliated to the university, the academic flexibility is followed in lines with the University Guidelines in words and spirits. Academic flexibility and bridging the gap between curriculum and industry is achieved by conducting Certificate Courses, Seminars and tie-ups through MOUs with industries. Every year the workshops, expert lectures, industrial visits and training programmes are conducted. The college puts efforts for placement and encourages self-employability by conducting Entrepreneurship Development Programmes through T&P cell. Students actively participate in various Co-curricular, Extracurricular, Social awareness and Community service through departmental forum and NSS activities. The institute obtains feedback from various stakeholders which is studied and analyzed in the direction of content, syllabus design, faculty involvement, quality of teaching and conveyed to the concern faculty for further necessary action.

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

The institute participates in the Centralized Admission Process conducted by Directorate of Technical Education, Mumbai and follows the guidelines laid down by DTE. Students admitted are mix blend of background, culture, religion and language. Financially weaker students are supported with scholarships as per

State and Central Government Norms. The institute provides information about other scholarships offered by government and NGOs. Institute acknowledges the diversified background and different pace of learning of students in contact hours and faculties are thereby making inclusive efforts to accommodate and promote effective teaching-learning methods. Apart from the classroom teaching, other learning methods are adopted such as NPTEL Video lectures, Peer learning, Case studies, Mini and Major projects, Industrial raining/Internships, Industrial Visits, Industry based projects, Seminars, Guest Lectures, Workshops, Aptitude, GD/PI, Mock Interview sessions, Technical Competitions etc. Faculty members are appointed as per AICTE and RTM Nagpur University norms. The faculty members are encouraged to participate in Training Programmes, Workshops, Seminars, Conferences, FDPs to update their skills. Faculties are also motivated to undertake research work and higher studies. Teachers take initiative to learn and keep abreast with the latest developments. Student performance is monitored continuously through regular Unit test, Mid-term practical and oral examination, Prelim examination and Mock and practice practical turns. The evaluation processes are made very transparent . The online evaluation of theory papers has been adopted by RTM Nagpur University. Employment ratio indicates achievements of teaching-learning process. Students and alumni feedback reports are obtained every year for ascertaining actual quality of teaching learning process.

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

Bapurao Deshmukh College of Engineering is the Centre for Higher Learning and Research recognised by Rashtrasant Tukadoji Maharaj Nagpur University in the subjects Applied Physics, Chemistry , Mathematics, Electronics Engineering, Electronics and Telecommunication Engineering, Mechanical Engineering and Civil Engineering. At present 21 Ph.D. degrees are awarded through 9 recognized Ph.D. Guides. Institute also has 25 M.E.by Research Supervisors and many students have successfully completed their M.E.by research. Institute provides various facilities to faculty and students for participating in various research activities and for healthy growth of research environment in the Institute. Faculty members and students are made aware of publications in standard referred indexed journal and citation in Google Scholar, Scopus etc. Plagiarism checks are adopted either manually or through online software and students are made aware of the allied issues of Patents, Copy right laws etc. Institute has received research fund from UGC, AICTE during last couple of years. The college library has rich collection of research articles. The Library subscribes research journals, periodicals and e-journals to interact in undertaking inter-disciplinary research to cater to the needs of various departments. The Institution has signed MoUs with several organizations. Institute encourages and promotes consultancy services among faculty members. Revenue generated from consultancy services is utilized for the up gradation of institute. NSS Unit of College conducts different activities. Institute conducts many social outreach programs which includes organization of awareness programs for environment, water conservation, computer education, blood donation camps, tree plantation etc.

### **Infrastructure and Learning Resources**

Institute has sufficient infrastructural facilities as per AICTE norms to support teaching-learning, Research and Administrative services. The college campus is spread over 18.73 acres with independent buildings for each department. College has sufficient numbers of Class rooms, Tutorial rooms, Seminar rooms, Conference hall and Laboratories. The institute Library is equipped with rich collection of reference books supported by e-journals and digital study material. Book bank scheme for reserved category students is available in the library. Reference books and Proceedings on various topics in Engineering, Management and Science are also available. Every department has independent Computer laboratory with adequate computing facility. Institute has well established Central Computer Centre. Campus-wide Networking Wi-Fi and CCTV facility is available

in the college. Many classrooms and laboratories are equipped with multimedia teaching aids. Laboratory equipment is as per the syllabus requirement. High-end equipment is also available for student projects and research. College has two boys and two girls hostels. Other provided facilities include Clean drinking water with RO system; Canteen, Girls and Boys Common rooms, Women's rest room, Telephone & Internet, Power generator set. A well equipped big Medical hospital is nearer to college campus. Apart from technical infrastructure, other physical facilities like ample parking space, green campus, adequate toilets, security personals are also available. All these campus facilities are maintained through independent Maintenance Unit. The College administration provides adequate budget and finance for the continuous availability of physical facilities.

### **Student Support and Progression**

The student-teacher mentor system exists in the institute. Each teacher mentors 25 students. As a process of monitoring, the students learning difficulties and progress are monitored and they are guided for examination, learning and career development. Institute has well defined structure for identifying slow learners and remedial actions are carried out for them. Institute has a dedicated Training & Placement cell with T&P officer. Grievance Cell for students, Anti-ragging committee, Anti-ragging squad, Women Grievance Cell . Students represent themselves on various academic and administrative bodies of Institute. The Institute provides all welfare measures such as scholarships, free ships and student safety insurance scheme to ensure a financially trouble free environment. Apart from Scholarships of state Government of Maharashtra, fee concession has been given to category and economically weaker section by Management. The Institute also offers Career counseling, Soft skills training, and Entrepreneurial skills to enhance the employability of the students. The students are encouraged to take part in several responsible administrative positions which not only improves their leadership skills but also helps them to achieve academic excellence. Participation in several events and activities, NSS, blood donation camps, etc. instills social responsibility amongst the students. The registered alumni association of institute is functioning actively. Institute organizes alumni meet and their interaction throughout the year by inviting them in their respective departments to guide the current students. The training and placement cell of the institute is well supported by all the departments while giving campus placement and career guidance.

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

Based on the Vision and Mission of the Institute and inputs from various stakeholders, the Quality Policy of the institution has been drafted. The leadership of the institute believes in Participative Management and strives to bring in excellence by structured organizational system with the involvement of all the stakeholders. A progressive, visionary and supportive Governing Body always gives freedom to the Principal to carry out academic activities of the institution. Various statutory committees have been formed in order to inculcate transparency in the decision making process and effective governance. The functionalities of these committees are well defined and the committees are headed by key persons with active participation of committee members. The Management empowers the faculty members through education & training, promoting research, allocation of duties. Administration takes care of the key attributes, i.e., Budgetary provision, Financial support, Infrastructure development, Resource planning, Manpower planning and development for smooth operation of the Institute. All quality improvement strategies are planned taking into consideration the feedback of all relevant stakeholders and deployed in a transparent and effective manner. Feedbacks are taken from stakeholders, at the appropriate times. The institute has the IQAC set up established from AY 2015-16. This cell focuses on the academic development of the institute. The some members of IQAC are chosen from the

industry and academia.

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

The faculty and students are sensitized for issues of Environment consciousness, Gender equity by way of organizing various activities and motivating the students to participate in these activities. The institute has well developed and maintained green campus. E- waste generated is properly collected and handed over to e- waste handling registered agency. Climate change and Environmental issues are also addressed. Tree plantation drive is carried out in nearby villages every year. Institute provides all the possible facilities for Divyangans. The Institute follows many innovative practices in Academic monitoring, Counseling and Testing, Teacher-Mentor Scheme and many more which have helped in improving the functioning of the Institute. The institute has taken up the innovative step by linking the bio-metric attendance of the faculty. The next best practice that would be followed in the institute is paperless governance through Management Information System. Being located in rural area, institute always takes care to improve overall personality of the students admitted from rural area, by organizing various activities such as improvement of aptitude, attitude and communication skills. Various projects are always undertaken at final year level to address the rural needs and problems. Entrepreneurship awareness programs are organized to address the issues like professional ethics and improvement in entrepreneurial competencies among students. Various activities are conducted by NSS unit to address the social responsibilities and to inculcate human values among students, such as Tree Plantation, Blood Donation Camps, Sadbhavana Yatra, Guest Lectures on related topics, and Celebration of Birth anniversaries and Jayantis of legends.

## 2. PROFILE

### 2.1 BASIC INFORMATION

Name and Address of the College	
Name	BAPURAO DESHMUKH COLLEGE OF ENGINEERING, SEVAGRAM
Address	At - Sevagram, Tah. Dist.- Wardha
City	Sevagram
State	Maharashtra
Pin	442102
Website	<a href="http://www.bdce.edu.in">www.bdce.edu.in</a>

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal(in-charge)	Girish Vishweshwarrao Thakre	07152-284378	9970089261	07152-284241	princi.bdces@gmail.com
Professor	Kishor Dnyandeo Patil	07152-284030	9766022512	07152-284517	kishordpatil@yahoo.com

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details	
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Date of establishment of the college	05-07-1983			
<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	The Rashtrasant Tukadoji Maharaj Nagpur University		<a href="#">View Document</a>	
<b>Details of UGC recognition</b>				
<b>Under Section</b>	<b>Date</b>	<b>View Document</b>		
2f of UGC	09-08-2012	<a href="#">View Document</a>		
12B of UGC	09-08-2012	<a href="#">View Document</a>		
<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>	02-05-2017	12	Process of applying for AICTE Extension of Approval for next academic year is going on

<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	At - Sevagram, Tah. Dist.- Wardha	Rural	18.73	21207

## 2.2 ACADEMIC INFORMATION

<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 Engg First Shift	48	Passed HSSC with CET Score	English	60	57
UG	BE,Civil Engg Second Shift	48	Passed HSSC with CET Score	English	60	20
UG	BE,Computer Engg First Shift	48	Passed HSSC with CET Score	English	90	79
UG	BE,Electronics And Power Engg First Shift	48	Passed HSSC with CET Score	English	60	21
UG	BE,Electronics And Telecommunication Engg First Shift	48	Passed HSSC with CET Score	English	60	7
UG	BE,Electronics And Telecommunication Engg Second Shift	48	Passed HSSC with CET Score	English	60	0
UG	BE,Mechanical Engg First Shift	48	Passed HSSC with CET Score	English	120	62

PG	Mtech,Civil Engg First Shift	24	Passed BE with GATE Score	English	24	8
PG	Mtech,Computer Engg First Shift	24	Passed BE with GATE Score	English	24	12
PG	Mtech,Electronics And Telecommunication Engg First Shift	24	Passed BE with GATE Score	English	24	1
PG	Mtech,Mechanical Engg First Shift	24	Passed BE with GATE Score	English	24	6
PG	Mtech,Electronics Engg First Shift	24	Passed BE with GATE Score	English	24	5
PG	MBA,Master Of Business Administration First Shift	24	Passed Bachelor Degree with CET Score	English	60	60

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

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	26				47				126			
Recruited	5	1	0	6	20	1	0	21	61	30	0	91
Yet to Recruit	20				26				35			
Sanctioned by the Management/Society or Other Authorized Bodies	0				0				0			
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit	0				0				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				1
Recruited	1	0	0	1
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				156
Recruited	112	5	0	117
Yet to Recruit				39

<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				92
Recruited	68	1	0	69
Yet to Recruit				23

### **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>
	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.	5	1	0	5	0	0	5	1	0	17
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	14	1	0	23	9	0	47

<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	1	0	0	0	2	0	3
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	34	17	0	51

<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>Others</b>	<b>Total</b>
		25	0	0

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

<b>Programme</b>		<b>From the State Where College is Located</b>	<b>From Other States of India</b>	<b>NRI Students</b>	<b>Foreign Students</b>	<b>Total</b>
UG	Male	1110	5	0	0	1115
	Female	667	1	0	0	668
	Others	0	0	0	0	0
PG	Male	78	0	0	0	78
	Female	98	0	0	0	98
	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	286	314	309	194
	Female	197	209	204	198
	Others	0	0	0	0
ST	Male	37	30	36	36
	Female	18	20	18	23
	Others	0	0	0	0
OBC	Male	637	668	705	692
	Female	394	476	521	545
	Others	0	0	0	0
General	Male	164	226	288	357
	Female	77	119	154	185
	Others	0	0	0	0
Others	Male	157	148	153	152
	Female	105	80	78	94
	Others	0	0	0	0
<b>Total</b>		<b>2072</b>	<b>2290</b>	<b>2466</b>	<b>2476</b>

### 3. Extended Profile

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#### 3.1 Program

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

Response : 16

Number of self-financed Programs offered by college

Response : 16

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

Response : 7

#### 3.2 Students

Number of students year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
2072	2290	2466	2576	2404

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
685	662	614	486	434

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

2016-17	2015-16	2014-15	2013-14	2012-13
589	612	734	704	594

Total number of outgoing / final year students

Response : 3233

#### 3.3 Teachers



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

2016-17	2015-16	2014-15	2013-14	2012-13
136	159	165	149	142

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

2016-17	2015-16	2014-15	2013-14	2012-13
134	159	163	149	142

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

2016-17	2015-16	2014-15	2013-14	2012-13
186	163	163	163	149

**Total experience of full-time teachers****Response : 1465.083****Number of teachers recognized as guides during the last five years****Response : 9****Number of full time teachers worked in the institution during the last 5 years****Response : 248****3.4 Institution****Total number of classrooms and seminar halls****Response : 39****Total Expenditure excluding salary year-wise during the last five years ( INR in Lakhs)**

2016-17	2015-16	2014-15	2013-14	2012-13
263.32049	334.03358	453.58392	432.99057	300.88017

**Number of computers**

**Response : 477**

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

**Response : 99325**

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

**Response : 12709**

NAAC

## 4. Quality Indicator Framework(QIF)

### Criterion 1 - Curricular Aspects

#### 1.1 Curricular Planning and Implementation

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

##### Response:

The institution meticulously develops action plans for the effective implementation of the curriculum. At the outset, the Principal of the college conducts meeting with various departmental heads to develop strategies for effective implementation of the curriculum. At the beginning of each academic year, the affiliating University gives guidelines about the dates of commencement of semester, end of semester, schedule of theory and practical examinations and holidays. Academic Monitoring Committee of the institute prepares the academic calendar of college by discussing with heads of the department of respective programs. Each department conducts departmental meeting in the beginning of every semester under the guidance of HOD with all faculty members. The motto of conducting the meeting is to discuss and plan the action about effective implementation of curriculum. Every department also prepares its own academic calendar by referring the college academic calendar. The syllabus of courses is discussed and allocated to appropriate faculty to handle and justify it. Faculty gets enough time to study the subject, prepare course file, notes, PPT, question bank, and other materials. Teaching plan is prepared well in advance topic-wise with understanding the blueprint of the subject. Teachers are deputed for orientation program of new courses, so that they can impart it to the students. Teachers are encouraged to impart the curriculum through innovative teaching methods such as presentations, assignments, discussions, quizzes, workshops, seminars and industrial visits besides the regular/traditional chalk and talk methods. Theory work, lab work and tutorial schedules are well prepared according to the needs of students. As a part of curriculum, the students are given assignments and are assessed regularly to keep them focused and upgraded. Mostly faculty uses PPT presentation along with discussion and brain storming session. The technical project of BE students are allocated by faculty as per their area of interest and experience. Project progress is regularly monitored during delivery of project progress seminar. The students are given a choice to opt the elective courses listed in the university curriculum. Industrial visits, seminars, workshops, paper presentations are planned and executed depending on the need of the curriculum. The monthly attendance report along with defaulter list is displayed. The defaulter students are instructed and parent meeting is conducted accordingly. At the end of every month, head of department collects the information related to syllabus coverage. In addition to the curriculum, students are educated about the latest developments in their respective fields, by arranging expert lectures, guest lectures, industrial and field visits etc. Students frequently visit the industries. For measuring the effectiveness of teaching learning process, students' feedback is also conducted in every semester. Continuous evaluation of students is carried out by conducting class tests, quizzes and terminal examination. Mentor-Mentee scheme is also implemented effectively. Around 10 students from each semester are allotted to each faculty. They maintain the complete personal and academic record of mentees and communicate to their parents by mail or telephonically.

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

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

**Response:** 0

#### 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	0	0

File Description	Document
Details of the certificate/Diploma programs	<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:** 15.39

#### 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
6	9	3	3	2

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

## 1.2 Academic Flexibility

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

**Response:** 43.75

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

Response: 7	
<b>File Description</b>	<b>Document</b>
Details of the new courses introduced	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

<b>1.2.2 Percentage of programs in which Choice Based Credit System (CBCS)/Elective course system has been implemented</b>	
<b>Response: 100</b>	
1.2.2.1 Number of programs in which CBCS/ Elective course system implemented.	
Response: 13	
<b>File Description</b>	<b>Document</b>
Name of the programs in which CBCS is implemented	<a href="#">View Document</a>

<b>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</b>				
<b>Response: 5.33</b>				
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
184	192	111	52	69
<b>File Description</b>	<b>Document</b>			
Details of the students enrolled in Subjects related to certificate/Diploma/Add-on programs	<a href="#">View Document</a>			

### 1.3 Curriculum Enrichment

<b>1.3.1 Institution integrates cross- cutting issues relevant to Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum</b>
<b>Response:</b>

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

The Institute has established a Sexual Harassment Cell, which is referred as an Internal Complaint Committee to sensitize the students and employees on gender issues. The members of committee make the awareness among the students and staff about the social, moral and legal implications of gender discrimination. Principal of the institute assigns duties to college staff without gender discrimination. The Internal Complaint Committee is committed to create and maintain gender sensitized environment. The institute takes additional efforts through National Social Service (NSS) for making students sensitive towards societal issues. Activities like Tree Plantation, Blood Donation Camp, Poster Exhibition on effects of environmental pollution are organized under the banner of NSS. Every department takes initiative to inculcate human values and professional ethics into students by organizing various programs like Soft Skill Development, Workshop on Entrepreneurship Development under the guidance of distinguished persons in these fields. Besides institute's efforts, the subjects like Ethical Science at second semester level, Environmental Science at fourth semester level, Industrial Economics and Entrepreneurship Development at fifth semester level, Industrial Engineering at seventh semester level and Industrial Management at eighth semester level are incorporated in the syllabus for getting basic knowledge of Environmental Engineering about the Sustainability of the Environment.

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

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

**Response:** 0

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

<b>File Description</b>	<b>Document</b>
Details of the value-added courses imparting transferable and life skills	<a href="#">View Document</a>
Brochure or any other document relating to value added courses.	<a href="#">View Document</a>

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

**Response:** 8.06

1.3.3.1 Number of students undertaking field projects or internships

Response: 167

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

## 1.4 Feedback System

<p><b>1.4.1 Structured feedback received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni and 5) Parents for design and review of syllabus-Semester wise/ year-wise</b></p> <p><b>A. Any 4 of the above</b></p> <p><b>B. Any 3 of the above</b></p> <p><b>C. Any 2 of the above</b></p> <p><b>D. Any 1 of the above</b></p> <p><b>Response: A. Any 4 of the above</b></p>	
File Description	Document
URL for stakeholder feedback report	<a href="#">View Document</a>

<p><b>1.4.2 Feedback processes of the institution may be classified as follows:</b></p> <p><b>A. Feedback collected, analysed and action taken and feedback available on website</b></p> <p><b>B. Feedback collected, analysed and action has been taken</b></p> <p><b>C. Feedback collected and analysed</b></p> <p><b>D. Feedback collected</b></p> <p><b>Response: C. Feedback collected and analysed</b></p>	
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:** 3.62

##### 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
24	40	77	116	182

#### File Description

#### Document

List of students (other states and countries)

[View Document](#)

Institutional data in prescribed format

[View Document](#)

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

**Response:** 63.81

##### 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
563	731	777	724	804

##### 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
1392	1349	1254	998	894

#### File Description

#### Document

Institutional data in prescribed format

[View Document](#)

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



**Response:** 76.05

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
479	493	466	372	362

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 college and individual teachers use assessment/ evaluation as an indicator for evaluating students' performance, achievement of learning objectives and planning. Evaluation results are used to identify slow learners and advanced learners. Advanced learners are those who maintain 8.0 SGPA or more. Advanced learners are specially provided extra knowledge in their subjects by providing individual guidance and for competitive examinations. The teachers also take into consideration performance of students in sports, NSS and other extra-curricular and cultural activities.

The Institute has a mechanism which continuously monitors and evaluates the students. The participation of the students in class room discussions, performance in class tests, class room seminars, class committee meetings and feedbacks measure their learning abilities.

This ensures the number of advanced learners among the students.

Advanced learners are motivated to strive for higher goals. They are provided with additional inputs for better career planning and growth like:

- Offering special coaching for GATE exams.
- Motivating them to involve in research projects to inculcate research orientation and practical awareness Advising to participate in group discussions, technical quizzes to develop analytical and problem solving abilities in them and thereby, to improve their presentation skills.
- Encouraging them to participate in science expos to design and execute working models to give shape to their inherent ideas.
- Helping them to publish their work in Conferences/Journals collaboratively.
- Providing opportunities to develop their creativity by participating and organizing intercollegiate as well as national level technical symposiums.
- Encouraging them with extra care to obtain University ranks.

- Institution provides financial assistance for projects.
- For independent learning, digital library facility is provided.

Thus, the college ensures that advanced learners' needs are met and they are supported in their quest for knowledge.

The slow learners are provided extra coaching for improvement to avoid dropouts. The college and individual teachers help the slow learners by giving proper guidance and support to the learners viz.

- Teacher reviews the academic performance of students from class room lecture, lab work, class tests, from class-in-charge's reports and previous university results.
- To conduct extra classes for the difficult courses (based on the previous university results) in the curriculum.
- Special attention is given to the students in the tutorial classes, who are identified as the slow learners.
- Slow learners are specially advised and counseled by a Mentor and the subject expert.
- Remedial classes are conducted for the weaker students based on the results of class tests.
- Special bridge courses are arranged for the lateral entry students in the II year to help them cope with theory subjects.

Thus, the efforts made result in the less dropout rate of slow learners.

### 2.2.2 Student - Full time teacher ratio

**Response:** 15.46

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:** 0.19

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

**Response:** 4

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 teaching learning process is student centric by default and sufficient space is provided for that in the academic plan. In the start of the session fundamentals are taught and for the better understanding of the subject, tutorial classes are conducted as per the curriculum prescribed by the university. Doubts and personal difficulties regarding the course are solved in the tutorial classes. Special slots are provided in the time table for the student-faculty interaction. Extra classes are conducted for the full coverage of syllabus where the involvement of students is ensured which results in the interactive teaching learning process.

Efforts are taken through curricular, co-curricular and extra-curricular activities, sports, games, and physical education for their all-round development. Students are counseled and encouraged to go for competitive examinations like GATE. Project seminar, paper presentation, group discussion etc. are held for enhancing the presentation skills of students.

College has sufficient Infrastructure for ICT enabled teaching and learning. Almost in every department there is a seminar hall with the precise ambience for conducting seminars, workshops and guest lecture for interactive learning. Guest lectures and interactive sessions with successful alumni are conducted to motivate students. Students are encouraged to participate in seminars, workshops, and quiz competitions, Paper Presentation / Poster Presentation. Few interdisciplinary projects are assigned to students so expose them to other department as well as discipline.

Industrial visits are organized on regular basis for practical exposure of the students. Teachers mostly use of audio-visual aids so as to keep the students' interest in teaching-learning. College facilitates internship in industries and companies for collaborative learning. There is ample computer facility with internet connection and Wi-Fi connectivity for fast and precise access of information for independent and interactive learning. College provides facilities to students for preparing charts, posters and models for Technical exhibition.

College has well-equipped digital library with access to e-journal, NPTEL, NMEICT and DTEL learning resources and direct access to the library resources through OPAC for independent learning. Also college has Virtual laboratories and LMS Module. Teachers make available Question Bank with Model Answers for the ease of students. College has implemented a project "Galaxy of Scientists" in association with the Department of Humanities and Social Sciences to constantly motivate them to read inspirational biographies of great scientists and innovators.

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

**Response:** 77.61

### 2.3.2.1 Number of teachers using ICT

Response: 104

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

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

**Response:** 26.23

#### 2.3.3.1 Number of mentors

Response: 79

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:**

Creativity and innovation is the essence of teaching and learning process. In the pre-technology education context, the teacher is the sender or the source, the educational material is the information or message, and the student is the receiver of the information. In terms of the delivery medium, the educator can deliver the message via the "chalk-and- talk method and it is a popular technique, which has been used for decades as an educational strategy in all institutions of learning. The teacher delivers the lecture content and the students listen to the lecture. It has been found in most universities by many teachers and students that the conventional lecture approach in classroom is of limited effectiveness in both teaching and learning.

After the constitution of IQAC, following innovations are adopted by the institute:-

1. Innovations in Use of Information & Communication Technologies (ICT)
2. Innovations in instructional delivery and method
3. Innovations in Assessment
4. Innovations in Evaluation

### **Innovations in Use of ICT**

One of the classroom in each department is provided with LCD projector, computer with LAN and internet connection. The faculty member can use black board, LCD projector judiciously during the lecture delivery. The faculty member and students can access on line e journals, e books from the classrooms or homes. The student can access the server of the digital library from home also. They can use NPTEL Materials DTEL Materials.

### **Innovations in Instructional Delivery and Methods**

Along with chalk and talk the faculty members teaching subjects like Engineering Drawing, Machine Drawing, Building Drawing , Structural Designs can use specific software for better visualization of the subjects. Working models are available in the departments which can be carried into classrooms for effective demonstration to the students. Concept oriented activities are planned in the classroom with the participation of the students

### **Innovations in Assessment**

Institute is planning to provide an assessment web link to the students and faculty for giving feedback on the ongoing lecture sessions. This feedback will enable the faculty to know the effectiveness of his teaching on day to day lecture basis and helps to improve his performance. Institute has decided to design and implement the Special Assessment Software to collect the attainment levels of Course Outcomes and Program Outcomes on frequent basis

### **Innovations in Evaluation**

Self Evaluation by the students is carried out under the faculty supervision. The students are divided into groups. Different home assignments are given to different student groups. One of the group members evaluates the assignments of remaining member including himself. The evaluation within the group is carried out on rotation basis. The evaluated assignments are submitted to the faculty for scrutiny and feedback. The traditional or innovative methods of teaching are critically examined, evaluated and some modifications in the delivery of knowledge is suggested. As such, the strengths and weaknesses of each teaching methodology are identified and probable modifications that can be included in traditional methods are suggested.

## **2.4 Teacher Profile and Quality**

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

**Response:** 91.26

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years	<a href="#">View Document</a>
List of the faculty members authenticated by the Head of HEI	<a href="#">View Document</a>

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

**Response:** 13.69

##### 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
31	22	20	16	12

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

#### 2.4.3 Teaching experience per full time teacher in number of years

**Response:** 10.93

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

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

**Response:** 9.37

##### 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
7	0	5	1	1

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>
e-copies of award letters (scanned or soft copy)	<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:** 1.6

##### 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
1	2	4	4	2

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:**

Continuous Internal Evaluation (CIE) and project work are the internal modes of assessment. The college being affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur adheres to the syllabus prescribed by the University. An academic calendar clearly specifying the date/time of various academic events to take place during the academic session is notified prior to the commencement of the academic session. Semester examinations are held as per RTM Nagpur University examination schedule at the semester end.

The evaluation system, as adopted by the Institute, has two components viz.

1. The Continuous Internal Evaluation (CIE)
2. The End Semester Examination (ESE)

The ratio of Weightage is 20% in CIE and 80% in ESE for UG (for theory) and 30% in CIE and 70% in ESE for PG (for theory). For practical, it is 50% each for both UG and PG.

For effective implementation of Continuous Internal Evaluation (CIE) system at the institutional level, the institute conducts three class tests and one optional pre-university test per course per semester and

performance based improvement test. The answer scripts are given back to the students after evaluation for their information, providing sufficient transparency and accountability. CIE marks are shown to students along with their answer scripts by the teacher concerned enabling them to have access to the evaluated answer scripts before the marks are forwarded to the examination section. It also promotes the student to participate in mini project demonstration, model exhibition, programming skill competitions, mega projects, technical paper presentation, workshop, and seminar. CIE Components also includes MCQs, Quiz competition, home assignments, Lab Exercises and Practical. The college encourages and guides students to participate in national level competitions organized by other Colleges and Universities. Students are encouraged to get involved in industry sponsored projects as a part of their curriculum in final year. The college gives facility to participate in competitive examinations and higher studies. Industrial visits are arranged for the students and students submit the visit report which is also evaluated for term work marks. For each program viz., UG, PG and Professional courses, suitable components are included in their CIE. The participation and performance of students in sports, NSS, and other extra-curricular and cultural activities is also given Weightage.

The feedback system is provided to the students for giving the feedback on all fronts. The institute communicates progress report of their ward to the parents. It organizes parents and guardians meet to have a communication once in a year.

Giving home assignment, tutorials, problems and taking follow up there upon helps the students to explore various learning resources like Internet and libraries etc. which enable them to develop self-study, analytical and reasoning capabilities. Students are also encouraged to watch video lectures (NPTEL), e-books, models and charts.

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

#### **Response:**

The institute's indigenous internal assessment is transparent with due formative and summative evaluation. For effective implementation of Continuous Internal Evaluation (CIE) system at the institutional level, the institute conducts three class tests and one optional pre-university test per course per semester and performance based improvement test. The answer scripts are given back to the students after evaluation for their information, providing sufficient transparency and accountability. CIE marks are shown to students along with their answer scripts by the teacher concerned enabling them to have access to the evaluated answer scripts before the marks are forwarded to the examination section.

An academic calendar clearly specifying the date/time of various academic events to take place during the academic session should be notified prior to the commencement of the academic session.

It also promotes the student to participate in mini project demonstration, model exhibition, programming skill competitions, mega projects, technical paper presentation, workshop, and seminar. CIE Components also includes MCQs, Quiz competition, home assignments, Lab Exercises and Practical. The participation and performance of students in sports, NSS, and other extracurricular and cultural activities is also given weightage. Every year the events are organized at institute level as well as departmental level which will cover all the types of competitions as mentioned above.



Industrial visits are arranged for the students and students submit the visit report which is also evaluated for term work marks. For each programme viz., UG, PG and Professional courses, suitable components are included in their CIE. The participation and performance of students in sports, NSS, and other extracurricular and cultural activities is also given weightage.

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

#### **Response:**

#### **College level**

- Institute Level Grievance Redressal Committee looks after college level grievances related to academic and non-academic matters.
- Grievance Redressal Committee helps the students to approach for general and personal grievances. After internal assessment, answer books are shown to all students. The internal marks of the students are displayed on the notice board to ensure transparency in evaluation.
- The Head of the department primarily redress all grievances about evaluation, including the internal assessment marks awarded to the students. In case of dissatisfaction, the same is put before the GRC.
- For the purpose of investigating unfair means resorted to by students at the College level, the cases are referred to GRC.

#### **University level**

- Students can apply for revaluation and verification of marks. The University provides the photocopy of answer books to students on demand after paying requisite fee. After receiving photocopy of the answer-sheet if student wants he/she can apply for reassessment of answer book.
- An aggrieved student who has the grievance(s) at university level shall make an application to the university through the Principal of the college. The Principal, after verifying the facts, shall forward it to the concerned section of the University. The University redress all such grievances within a reasonable time, preferably within fifteen days of the receipt of application.
- The application submitted by the aggrieved student shall be forwarded to the concerned section (Dy Registrar) viz. Academic grievance, administrative grievance etc. The university level committee is responsible to redress the matter.
- If the student is not satisfied with this decision, he/she can submit appeal to the higher authorities (Registrar/ VC) within a stipulated time.
- University level committee shall process grievance(s) submitted by the students within a stipulated period.

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

#### **Response:**

The institute being affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur adheres to the

syllabus prescribed by the University. The curriculum, approved by the university is adhered to and efforts are made to provide best teaching in the concerned course by competent faculty members. The academic calendar published by the affiliating university forms the basis for designing the college academic calendar. An academic calendar clearly specifying the date/time of various academic events to take place during the academic session is notified prior to the commencement of the academic session.

The college systematically designs and develops action plans for effective implementation of the curriculum. The Principal of the institution conducts meetings regularly with the Heads of Departments to develop various strategies for effective implementation of the curriculum.

Considering the competency matrix, the head of department allocates courses for teaching to the faculty every semester well in advance. Department time table is prepared and it is displayed on notice board along with academic calendar. The college academic calendar consists of commencement date and last working date, Teaching period, dates for conduction of the internal assessment tests and Extra-curricular & Co-curricular activities.

At the beginning of every semester, academic diaries are provided to all faculties. Each faculty member prepares and writes a teaching/laboratory plan for the course assigned in their academic diaries. Faculty maintains the attendance record for each theory/ laboratory course and the performance of students in tests in their diaries. Students are informed about the continuous assessment policy in the beginning of every semester. The Head of department along with project coordinator conducts the special informative session to final year students to enhance the awareness and importance of their project work in their future and importance of lifelong / continuous learning. The project coordinator guides students for formation of project group, team leader and prepares the detailed schedule of projects and, seminars. The college conducts three class tests and one optional pre-university test in every semester.

The students and parents are informed about their performance. The practical and oral examinations are conducted every semester before University Examination. The mentor discusses with student mentees about their academic performance, personal problems and gives guidance about improvement. The college collects feedback from the students formally as well as informally on quality of teaching, resources etc. Student's feedback is analyzed and improvement plans are initiated to enhance quality of education. 'Parents meet' is organized every year to discuss on the issues like teaching-learning process, infrastructural facilities, performance of their wards, and training & placement activities. The college organizes co-curricular and extra-curricular activities to supplement the overall development of students.

The portfolios are allotted to faculty members for the effective implementation of teaching learning process in every semester. The faculty members conduct their internal meetings and develop academic plans such as timetables, Teaching plans, and course files for the coming academic year.

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:**

Documents Requirement:

- COs for all courses
- Description of Mechanism of Communication

As the Institution is practicing the Outcome Based Education (OBE), each program of the college has clearly stated its learning outcomes for all the courses in terms of Program Specific Outcomes (PSOs), Program Outcomes (POs), and Course Outcomes (COs).

The vision and mission of the institution clearly states and stresses on the holistic development and passion for learning of the individual. While defining these outcomes graduate attribute requirements are considered. These are published on the website of the college.

All the departments have well defined Program Specific Outcomes (PSOs) and they also have clearly defined Program Outcomes (POs) and Course Outcomes (COs) and cross mapping has been done in between PSO, PO and CO.

Program Specific Outcomes (PSOs) are what the graduates of a specific undergraduate engineering program should be able to do at the time of graduation. A Department can differentiate its program through its PSOs. The POs define the abilities of the students of that program expected at the time of graduation and COs are the learning outcomes that the students imbibe at the end of each course.

These are disseminated to the stakeholders through interactions such as, student-class teacher meetings, parent meetings, industry meetings, etc. The program outcomes are notified by presentations, academic diaries.

- Program outcomes are displayed in the departments.
- Program outcomes are notified to parents.
- program outcomes are uploaded on College website

Each course has well defined course objectives and course outcomes, which is mentioned in the particular course syllabus. Learning outcomes are stated to the students and faculty in the beginning of each course. Institution organizes Faculty Development Programs for various courses. During the interaction with students in class committee meetings, the course objectives and outcomes are discussed and monitored by the Head of the Department and the Principal.

The faculty is made aware of the learning outcomes for each course which is clearly indicated in the curriculum provided to the students. In lesson plan course objective and outcomes are clearly indicated. The learning outcomes are specified in the lesson plan which is a part of the teacher's course file. Lesson plans are reviewed by the respective HOD to ensure that the objectives are met. After the completion of every unit, the teacher discusses the learning outcomes related to that unit with the students. The results of Outcome Assessment are used to evaluate the effectiveness of academic programs and activities. The teacher uses the information collected to develop and improve academic programs.

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:

Program run by institution has well framed Course Objectives, Course Outcomes, Program Specific Outcomes in relation with Program Outcomes.

The Program Outcomes are:-

- Notified by Presentations
- Academic Diaries
- Displayed in the Departments
- Notified to Parents
- Uploaded on College Website

Correlation between the Course Outcomes and Program Outcomes and Program Specific Outcomes is established for all courses of the program.

CO-PO & PSO Matrices are formed by entering

1 low, 2- moderate and 3-high level of correlation.

#### Attainment of Course Outcomes

All COs are considered with equal weightage.

In order to record Course Outcome attainment (internal & external assessment) target levels are set. Mark obtained by each student is calculated by setting target levels for each CO attainment through external assessment.

students scoring more than university average marks

Level 1: 40%

Level 2: 50%

Level 3: 60%

Internal Assessment

Percentage of students scoring more than 60% marks out of relevant maximum marks.

Level 1: 40%

Level 2: 50%

Level 3: 60%

### **PO Attainment**

In PO attainment, Course Attainments are compiled with average of courses.

### **Direct Attainment**

Each course attainment is associated with CO-PO mapping average of that course. The attainment level for PO attainment in direct method is summation of levels divided by number of courses.

### **Direct attainment of PO = C \* AVG\_CO\_PO mapping of course/3**

where C indicates course attainment of the academic year. Final PO attainment is sum of direct and indirect attainment:

### **For Theory**

**PO attainment = 80% of direct attainment + 20% of indirect attainment**

### **For Practical**

**PO attainment = 50% of direct attainment + 50% of indirect attainment**

### **NAAC Attainment level calculation procedure**

- Course Outcome attainment levels calculation
- PSOs & COs are finalized in faculty meeting
- CO - PO mapping is done on the basis of relevance to particular parameters, indicator and marked as 1, 2, 3 in tabular format.

**Direct Attainment:** Course-wise result analysis of all students is performed for university marks from tabulated result. Students passing the course with 60%, 70%, and 80% & above marks are identified, and thereafter percentage of passing student is calculated.

Same procedure is applied for internal assessment marks, percentage of students scoring above thresholds are also decided for internal assessment.

Level 1, level 2, level 3 are set at 60%, 70% & 80%, these are referred as direct attainment levels.

**Indirect Attainment:** Questionnaires are developed for stakeholders (eg students, parents and industry persons, Alumni survey etc). The answers to questionnaires are rated as 1, 2, 3. Questionnaires are circulated among stakeholders for survey via direct communication, emails or post etc.

The feedback from stakeholders is tabulated and then averaging is performed. Again by mentioning the threshold values that how many stakeholders have replied in positive way. Positive reply of stakeholders is compared with the threshold values for calculating indirect attainment.

80% of direct attainment values & 20% of indirect attainment values are added to get final attainment level.

### 2.6.3 Average pass percentage of Students

**Response:** 80.38

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

Response: 467

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

Response: 581

File Description	Document
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:** 2.5

File Description	Document
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 (INR in Lakhs)**

**Response:** 0.25

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
0.0	0.0	0.25	0.0	0.0

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:** 6.72

3.1.2.1 Number of teachers recognised as research guides

Response: 09

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

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

**Response:** 0.12

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

Response: 06

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:

The college has taken an initiative in creating an eco system for innovations. The institution provides support in terms of financial, academic and human resources required and timely administrative decisions to enable faculty to contribute in research proposals and/approach funding agencies for mobilizing resources for Research. The institute has witnessed number of activities for transferring knowledge among students, teachers and industry persons.

With the advent of globalization and opening up of Indian economy to the outside world competition among industries has become stiff. To solve their engineering problems they look up to engineering institutions. Similarly, there is an urgent need to prepare engineering students for jobs in multinational companies, by exposing them to newer technologies and engineering methodologies.

These can only be achieved well by bridging the gap between industry and the academic institutions. Better interaction between technical institutions and industry will have great bearing on the engineering curriculum, exposure of engineering students to industrial atmosphere and subsequent placement of young graduating engineers in industries across the country.

The institute has regularly organized Industry Institute Interaction Meet like Industry Institute Interaction Meet (III Meet 2017, 2016, 2015 and 2014) to bridge the gap between Industry and Institute and conducted seminars like “New Trends in Transmission & Distribution Systems”. The industry makes teachers and in turns students inculcating the various skills required by the industry, thereby contributing to the economic and social development at large.

The institute encourages creative minds, inventions and artistic works by organizing “Expert lectures on introduction to IPR and patent & Rapport building. In addition to this, institute has frequently organized career seminars like “Expert lecture on career guidance”. It helps students discovering their potential and aptitude and accordingly opts for the right course.

The structure of the job market has changed in recent years with technology having slipped into almost every nook and cranny in our daily lives. So it is necessary that students should start to become more inclined towards starting something of their own and becoming entrepreneurs. Entrepreneurship in the business context is the process of creating or spotting a business opportunity. By organizing EDPs institute develops the requisite managerial skills and tactics into the students and able them to apply it with their entrepreneurial expertise to scale up their business and reap the benefits profitably.



The world is changing and the requirements for people entering into this world are different than they have been in the past. Students should be able to see changes in the world created by technology, and faculties should be equipped to impart latest trends into the scholar. Hence organizing guest lecture like, “A guest lecture on Web Technology and its effectiveness in live projects”, workshops like “ Technical Workshop cum Guest Lecture” on MobiCloud: A recent need for faster and secure data transmission” is a regular practice of our institute.

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

**Response:** 25

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
05	07	05	06	02

File Description	Document
Report of the event	<a href="#">View Document</a>
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:** No

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>
e- copies of the letters of awards	<a href="#">View Document</a>

**3.3.3 Number of Ph.D.s awarded per teacher during the last five years****Response:** 2.22

## 3.3.3.1 How many Ph.Ds awarded within last five years

Response: 20

File Description	Document
URL to the research page on HEI web site	<a href="#">View Document</a>
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	<a href="#">View Document</a>

**3.3.4 Number of research papers per teacher in the Journals notified on UGC website during the last five years****Response:** 0.11

## 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
07	05	00	03	02

File Description	Document
List of research papers by title, author, department, name and year of publication	<a href="#">View Document</a>

**3.3.5 Number of books and chapters in edited volumes/books published and papers in national/international conference proceedings per teacher during the last five years****Response:** 1.52

## 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
18	100	52	38	19

File Description	Document
List books and chapters in edited volumes / books published	<a href="#">View Document</a>

### 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 institution promotes college-neighborhood network community development by conducting regular activities related to social responsibilities of the institute. NSS Units comprising of 200 students are active in community development activities, like:

- Cleaning of villages
- Tree plantation
- Students Education in schools at villages
- Distribution of books, uniforms and other necessary belongings to the poor students
- Blood donation camps
- International White Cane Day celebration for Visually Challenged People
- Given donation to NAAM Foundation - Rehabilitation of family Suicide Farmers
- Scrap (Raddi) collection and donation for Cancer Patients
- Aalekhan - a wall painting competition for giving social messages to society

Every year the college celebrates Laxmi Narayan Day to pay tribute to the founder of the esteemed institution. The main goal of the program is to let the students know about the history of the institute and plans for the future growth of the institute in the light of changing facets of engineering education all over the world.

On occasion of national youth day, a blood donation camp and a guest lecture is organized to spread Swami Vivekanand's ideas and ideals among the youth. Students willingly take participation in blood donation camp.

Also the college celebrates the Shivjayanti every year. On this occasion a tree plantation program is taken in the college. The students and faculty members actively participate in the program. Experts are invited to deliver the lectures on heroic tales of Shivaji and instill values of Chhatrapati Shivaji Maharaj in our students.

College organizes a technical event and an expert lecture on the occasion of Digital India Week. Students are exposed to few areas on which students from engineering fraternity contribute few projects for Digital India and Rural Development. On this occasion college organizes two competitions, Digital Poster Designing and Extempore.

To spread awareness about the abilities and the disabilities of the visually challenged and also the need to eradicate avoidable blindness, an International White Cane Day is celebrated at college level. The mission

of White Cane Day is to educate the students about blindness and how the blind and visually impaired can live and work independently while giving back to their communities.

The Institute is conscious of its role in campus cum community connections, well being of its neighborhood as well as build student's attitude for service orientation and good citizenship.

File Description	Document
Any additional information	<a href="#">View Document</a>
Link for 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: 2**

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
00	00	01	00	01

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

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

**Response: 44**

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

2016-17	2015-16	2014-15	2013-14	2012-13
09	11	10	08	06

File Description	Document
Reports of the event organized	<a href="#">View Document</a>
Number of extension and outreach programs conducted with industry,community etc for the last five years	<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:** 8.32

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
450	230	150	00	90

File Description	Document
Report of the event	<a href="#">View Document</a>
Average percentage of students participating in extension activities with Govt. or NGO etc.	<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:** 47

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
27	09	08	02	01

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 Institutions, Industries, Corporate houses etc., during the last five years (only functional MoUs with ongoing activities to be considered)**

**Response: 6**

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

2016-17	2015-16	2014-15	2013-14	2012-13
01	00	04	00	01

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

- 1.The College is situated on a sprawling 18.73 acres of lush green campus with built-up area of 21,207 square meters.
- 2.The state-of-the-art infrastructure augments learning and promotes a good teaching-learning environment. Total 39 classrooms, 9 tutorial rooms 54 laboratories, common workshop, computer center, central library, 3 departmental libraries, 2 closed auditoriums, 2 conference halls, seminar rooms, canteen facility and playground are available in the campus.
- 3.All the departments have at least one classroom equipped with multimedia teaching aids.
- 4.All the departments have well equipped laboratories satisfying the norms of regulating bodies. College has invested more than Rs. 485 lakh on laboratory equipment and instruments. Each laboratory is equipped with sufficient number of required experimental setups.
- 5.410 out of 477 computers are connected to internet through LAN.
- 6.College management ensures availability of adequate physical infrastructure considering AICTE, DTE and affiliating university norms. Whenever additional program is started or curriculum needs arise it is ensured that required physical infrastructure is available on time.
- 7.Every department has dedicated laboratories and classrooms. Considering the contact hours of each course, classroom and laboratory utilization time table is planned by the departments. Time slots required for practice sessions and examinations are considered in time table planning / Academic Calendar. Regular Classroom and laboratory sessions are conducted six days a week. Separate tutorial rooms are available for additional lectures and tutorials.
- 8.Resources are shared across departments whenever needed. Every department has computer laboratory which is utilized for project development and competitions by students of all departments.
- 9.The common facilities like auditoriums and conference halls are utilized as per requirement. These can be used for conducting guest lectures, training, conferences and workshops.
- 10.Playground and sports facilities are accessible to all the students.
- 11.Open access system, use of SLIM++ version 3.00 software, availability of good number of reference books and journals, etc. are the salient features of the central library.

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

**Response:**

To promote interest in sports and cultural events, the college encourages students by providing adequate budget and resources.

**Facilities for Sports Activities:**

- 1.College has a playground of 24738 sq. m. with sports facilities like basket ball, volleyball, Football, Kabaddi, and Cricket.
2. Apart from outdoor games college has made provision of indoor games such as table tennis, carom, chess etc. For this purpose of indoor games college has a separate Sport Complex..
- 3.College has a well-equipped gymnasium with facilities such as machine exercises, free weight exercises.
4. A hall for yoga and meditation is also available with the college.
- 5.The students participates in various zonal, all India and Inter-university level tournaments. The students have participated in various state and national level competitions and also have won prizes in the All India Inter University at Indore (MP), All India Inter University at Amritsar (Punjab), RTM Nagpur University, Nagpur (MS).
- 6.Students are motivated to participate in intercollegiate competitions like “Battle on Filed” a sports tournament.

### Sports and games (Indoor)

Sr. No.	Name of Game	Area (sq.m.)	Year of establishment	User rate
1	Badminton	88 sq.m.	2012	44 per Acad
2	Chess	34 sq.m.	2012	46 per Acad

### Sports and games (Outdoor)

Sr. No.	Name of Game	Area (sq.m.)	Year of establishment	Use
1	Football	7200	2012	39 p
2	Cricket	7200	2012	89 p
3	Volleyball	324	2012	61 p
4	Basketball	420	2012	9 pe
5	Kabaddi	125	2016	43 p

### Gymnasium

Sr. No.	Name of Equipment	Area (sq.m.)	Year of establishment	User rate
1	Multi station Gym	82	2012	20 USER

### Yoga Center

Sr. No.	Activity	Area (sq.m.)	Year of establishment	Use
---------	----------	--------------	-----------------------	-----



1	Yoga Practices 2017	223	2015	91
2	Yoga Practices 2016	223	2015	112
3	Yoga Practices 2015	223	2015	192

### Facilities for Cultural Activities:

- 1.College has sound system, music system, light system and various allied equipment.
- 2.College has an Auditorium as a facility to conduct departmental cultural activities. Every department uses Auditorium minimum 2 times a year. Also college level activities are conducted in same hall.
- 3.Dr. A. P. J. Abdul Kalam Hall is also available.

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

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

**Response:** 41.03

#### 4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 16

File Description	Document
Number of classrooms and seminar halls with ICT enabled facilities	<a href="#">View Document</a>
Link for additional information which is optional	<a href="#">View Document</a>

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

**Response:** 15.6

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

2016-17	2015-16	2014-15	2013-14	2012-13
50.00	90.00	120.00	10.00	10.00

File Description	Document
Details of budget allocation, excluding salary during the last five years	<a href="#">View Document</a>
Audited utilization statements	<a href="#">View Document</a>

## 4.2 Library as a Learning Resource

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

#### Response:

Library has total area of 520.32 sq. m. with reading room seating capacity of 100 students. Library remains open on all working days between 10 am to 6 pm. During Examination days library timings are extended up to 7 pm on all working days except Saturday. Saturday timings are from 10.00 am to 2.30 pm.

Library provides open access facility to its users right from First to Final year students. Library users can move freely in stack and select the books of their choice for issuing of books and for reading in the reading room. Library staff is always there to help students in locating the required books in the stack. Web-OPAC facility is available where students can know the information resources available in the library. Users can also know the new arrivals in the library through this medium and even know what documents are issued in their name.

- Total Books available are 34771
- Books for Book Bank Scheme are 11105
- Bound Volumes of Periodicals are 2328
- Subscription to Periodicals = 82 (Prints)

Library has the NPTEL database on External Hard disk from IIT Chennai. Library has been registered as a member of National Digital Library. It also has Digital Section and reprography facility. Free book bank for SC, ST category students and for meritorious students is also available.

- Name of the software - SLIM ++
- Nature of automation (fully or partially) - Fully
- Version -3.00
- Year of automation - 2002

File Description	Document
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:

Sufficient number of Rare Books ,Special Reports and other Knowledge Resource is available in the Central Library of the Institution for its enrichment. The details of the same are given below.

Category of Knowledge Resource	Title of Rare Books, Manuscripts, Special Reports	Nos. Available
<b>Manuscripts</b>	N I L	Nil
<b>Rare Books</b>	Standards Code Books	12
	Data Books	19
	Proceedings of National/International Seminars/ Conferences/Workshops/Congress/Symposium	112
	Reference Books	10
	Hand Books of Engineering Fields	129
	Data & Comparison Tables	5
	<b>Special Reports</b>	Lecture Notes of eminent Persons
	Technical Reports on Engineering Issues	14
<b>Other</b>	Dictionaries on languages/Subjects	36
	Directories	10
	Manuals	36
	Encyclopedia	46
	World Record Books	3
	<b>TOTAL</b>	<b>434</b>

File Description	Document
Any 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:** B. Any 3 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:** 19.55

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
17.06619	13.61694	21.31137	22.93118	22.83494

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

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

**Response:** No

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:** 3.72

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

Response: 82

**File Description****Document**

Details of library usage by teachers and students

[View Document](#)**4.3 IT Infrastructure****4.3.1 Institution frequently updates its IT facilities including Wi-Fi****Response:****Application Software Support**

- 1.The college has purchased Microsoft office 2013 std. OLP. Also a license SQL Server Client Access License OLP, SQL Server standard 2014 OLP, MS Windows Server 2012 Stand. Proc. AE and MS Windows Server 2012 Client Access Lic. Visual Ratio Prof. 2013 on 09th March 2015.
- 2.The institution also has ADOBE: Acrobat Professional 11 multiple Platforms AOO TE1 E-lic. on 09th March 2015.
- 3.The college has purchased Microsoft 110 lics. Desktop Edu. ALNG Lic SAPK OL VE The Campus Desktop package Win.7/8 upgrade Micro Office, Prof.+, client access of lic. Win. Server, etc. on 25th August 2016

**Number of systems with configuration**

The college has 477 computer systems with PV and above configuration.

**Computer-student ratio**

Computer to student ratio is 1:4. However, in the laboratories, for every student separate computer is provided.

**Dedicated computing facility**

Every department has dedicated computer lab. In addition to these labs, computer centre is available.

**LAN facility**

All the systems available in the college are connected and are provided with Internet facility via LAN with 50 Mbps speed.

**Wi fi facility**

Wi fi facility is available in the college as well as in the hostels. The system is activated from 21-03-2012 with 3200 wireless point and updated on 26-06-2014.

### Services

The college has CCTV surveillance 24x7 facility on the campus for security purposes. The system has been started from 14th of July 2014. The college has started use of EPABX from 24th December 2014. The maintenance is carried on annual basis of all systems and is repaired as and when required. The college has also launched messaging services from 25th May 2017 on the annual basis. College also provides help desk services for students for 24x7 of EPABX.

### Management

The college has Office Automation Software for Database Management. The Network Management is done on annual basis.

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

#### 4.3.2 Student - Computer ratio

**Response:** 4.34

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

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

**>=50 MBPS**

**35-50 MBPS**

**20-35 MBPS**

**5-20 MBPS**

**Response:** >=50 MBPS

File Description	Document
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:** No

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:** 37.54

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
86.83349	164.69447	179.25820	145.47540	97.19676

File Description	Document
Details about assigned budget and expenditure on physical facilities and academic facilities	<a href="#">View Document</a>
Audited statements of accounts.	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**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:**

Sr. No.	Particular	Details-maintaining and utilizing physical, academic and support facilities
1	Laboratory	The laboratory equipments are serviced and maintained by the equipment suppliers maintenance contract basis.

		There are also on call servicemen who attend the various requirements. Inspection instruments/equipment are carried out on regular basis.	
		Faculty in-charge of Lab and a laboratory assistant looks after the maintenance of laboratory. They are also involved in preparing the budget for the required consumable equipment and repairs.	
2	Library	All the books are accessioned accordingly by the serial number of accession number and subject wise and shelved in the rack according to call numbers regularly.	
		Faculty members of departments can borrow books from the Central Library or Dept. Library. Students in their free time can make use of the books available in the Central Library. One Faculty member is made in-charge of the Dept. Library.	
3	Building	For maintenance of the building and related facilities, number of committees work under Administrative Office.	
	Sports complex	Sports In-charge officer is appointed to ensure maintenance, upkeep of the Sport Complex and other sport activity of Indoor and Outdoor games.	
4	Computers	All sensitive equipments like computers/lab equipment are supplied power through online UPS. Therefore, all these equipment are taken care of against voltage fluctuations etc.. Power backup facilities provided through 63 KV diesel generators	
	Internet	Internet related matter is maintained by a team of Technical assistants under the supervision of Computer Science Department. They maintain the daily band width, usage, band width sharing etc.	
5	Classroom	Well-furnished class rooms are cleaned by peon every day. Seminar hall of the department is maintained by departmental attendant & Technical Assistant at regular intervals	
6	Hostels	Separate hostels for Boys & Girls with capacity of around 300 students.	
7	Canteen	Canteen is located in the campus and is maintained by an external agency.	
8	Staff Quarters	Principal Bungalow and Quarters are available in the campus.	



## 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:** 70.83

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
1402	1496	2084	1649	1746

#### File Description

#### Document

Upload self attested letter with the list of students sanctioned scholarships

[View Document](#)

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

[View Document](#)

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

**Response:** 2.23

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
128	107	8	0	0

#### File Description

#### Document

Number of students benefited by scholarships and freeships besides government schemes in last 5 years

[View Document](#)

Any additional information

[View Document](#)

**5.1.3 Number of capability enhancement and development schemes –**

1. For competitive examinations
2. Career counselling
3. Soft skill development
4. Remedial coaching
5. Language lab
6. Bridge courses
7. Yoga and meditation
8. Personal Counselling

**A. 7 or more of the above**

**B. Any 6 of the above**

**C. Any 5 of the above**

**D. Any 4 of the above**

**Response:** C. Any 5 of the above

<b>File Description</b>	<b>Document</b>
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:** 18.88

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
426	458	475	408	451

<b>File Description</b>	<b>Document</b>
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:** 5.71

## 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
169	85	118	153	143

**File Description****Document**

Details of the students benefited by VET

[View Document](#)**5.1.6 The institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases****Response:** No**File Description****Document**

Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee

[View Document](#)

Details of student grievances including sexual harassment and ragging cases

[View Document](#)**5.2 Student Progression****5.2.1 Average percentage of placement of outgoing students during the last five years****Response:** 23.08

## 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
154	182	168	175	70

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

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

**Response:** 2.55

#### 5.2.2.1 Number of outgoing students progressing to higher education

Response: 15

File Description	Document
Upload supporting data for student/alumni	<a href="#">View Document</a>
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/ TOEFL/ Civil Services/State government examinations)

**Response:** 6.65

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

2016-17	2015-16	2014-15	2013-14	2012-13
7	14	50	35	15

#### 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
333	340	369	361	394

File Description	Document
Upload supporting data for the same	<a href="#">View Document</a>
Number of students qualifying in state/ national/ international level examinations during the last five years	<a href="#">View Document</a>

### 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.				
<b>Response: 7</b>				
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	2	0	1	3

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>
e-copies of award letters and certificates	<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	
<b>Response:</b>	
<p>In every second / third month of odd semesters of academic year, faculty in-charge of Students' Council circulates a notification to respective HOD /in-charge for collecting the information about the topper students of I, II, III, IV, V, VI, VII semesters as well as PG (M. Tech), and MBA and also the contribution of such students in sports, NSS and cultural activities for selection of nominee. Principal and faculty in-charge of student council conduct a meeting of all the students to constitute Students' Council as per the RTM Nagpur university norms and rules of the college. The candidates filling the nomination paper are required to fulfill following conditions.</p> <p>A candidate student should be a bona-fide student on the role of college. He should not have any live ATKT in year of contesting election A candidate student should have minimum percentage attendance in</p>	

the class as per the norms. A candidate student shall not have any criminal record. The candidate must be regular full time student of institute.

The secretary is elected from among the nominated students on the scheduled date given by RTMU Nagpur University. The selection of office bearers suitable for the post is recommended by the panel of principal, faculty in-charge of student council. The student council starts its functioning after the declaration of elective nomination for the post by the Principal. The details about the elected secretary of the Students' Council are communicated to the Director of Students Welfare RTM Nagpur University Nagpur. The Students' Council remains in force in the institute for that academic year. The secretary acts as a medium between the student and administration until the oath of next council.

The functioning of student council start with the responsibility

1. Smooth conduction of annual gathering COLOUR every year.
2. Conduction of Fresher Day every year for newly admitted students.
3. Prevention of ragging in the campus through counseling senior students, helping the administration whenever necessary.
4. Suggesting the administration to improve the students' amenities.
5. Helping the administration in smooth conduct of student activities on the campus.
6. Guiding the junior and needy students to improve their technical, organizational and managerial skills by organizing seminars, workshops, symposia.
7. Encouraging innovative and creative skills of UG and PG students.
8. Organize the program in the campus to improve the cleanliness and greenery in the campus.
9. Any activity to improve knowledge and skill of the campus student.
10. Maintenance of peace and harmony in the campus community in general and student community in particular.

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:** 7.6

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
9	8	6	6	9

File Description	Document
Report of the event	<a href="#">View Document</a>
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 alumni association activities started in year 1995 at college level. Alumni Association got registered in the year 2004 with name Gandhigram Engineers' Alumni Association (GGEA) with registration no. Maha 92/2004. Today GEAA is financially independent with contribution from outgoing students. GEAA carries various activities and programs which are in the interest of alumni as well as institution. GEAA has prominent members from the Indian Industries, Universities, Trade and Commerce and Multinational Companies. GEAA started conducting Alumni Meet of those batches who have completed 25 years. The first Alumni meet of 1983 batch was held in 2008, the 1984 batch in 2010, 1985 batch in 2011. On 22nd January 2012 GEAA is conducting Alumni meet of 1986 batch and in this way it will go on.

In order to get closer to our alumni, GEAA has also opened two chapters of the association at PUNE and NEW DELHI where most of our alumni are based. Today our alumni are spread throughout India and abroad also. Some of them are serving in well known companies in higher position. We want to link with them and to entrap their knowledge, skill and talent for betterment of our institution.

The first office bearers who were unanimously elected are Er. S. R. Choudhari as President, Er. R. V. Ghogre as Vice-President, Er. Mahendra Gaikwad as Secretary, Er. Girish Thakre as Treasurer and Er. Dipak Dandekar as Joint Secretary. The office bearers' took efforts hard in their regime to make GEAA financially independent with contribution from outgoing students. In 2008, the college celebrated SILVER JUBILEE year and from this occasion association started Alumni Meet of those batches who have completed 25 years for their admission in the college. In this connection Alumni meet of 1983 batch was organized in the college campus. Also association opened its first chapter at Pune in the same year. The Chapter was inaugurated in presence of our alumni and Director Er. Sameer Deshmukh. The Chapter was inaugurated by the internationally renowned scientist Dr. Ajit Kembhavi, Director of Inter University Centre for Astronomy and Astrophysics (IUCAA), Pune, which is the autonomous institution set up by University Grants Commission.

In 2010, new office bearers were elected in the leadership of Er. R. S. Kedar and the team continue the tradition of holding the alumni meets and opened a new chapter at New Delhi in 2010. The chapter was inaugurated by the hands of Chief Guest Mr. Rajyavardhan Singh Rathod, Olympic Gold Medalist.

The objectives of the Alumni Association are:

- To provide a forum for the Alumni of the Institute.
- To promote the professional interests of the Alumni.
- To strengthen liaison between the Alumni and Students.
- To improve the placement of students of institution through Alumni.
- To improve the Infrastructure of the institution through alumni.
- To reconnect or re-link the alumni of different batches.
- To conduct “alumni meet” of those batches who have completed 25 years

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

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

? 5 Lakhs

4 Lakhs - 5 Lakhs

3 Lakhs - 4 Lakhs

1 Lakh - 3 Lakhs

**Response:** 1 Lakh - 3 Lakhs

File Description	Document
Any additional information	<a href="#">View Document</a>
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:** 13

##### 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
4	2	4	3	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>
Any additional information	<a href="#">View Document</a>
Report of the event	<a href="#">View Document</a>

NAAC

## 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:

The Institute is governed by the Board of Members of Yeshwant Rural Education Society, Wardha started in 1959 with vision to bring revolution in the field of education specially in the rural area. Vision of the Institution is ' Globally acceptable professionals satisfying Technical & Social needs' . Mission of the Institution is ' Networking and co-operation with global organization by creating suitable environment in the campus'. The Institute has a well-framed administrative set up conforming to the norms of the regulatory bodies. Institute has statutory and non-statutory bodies as per the guidelines of UGC / AICTE. Institute has adopted best practices in Governance & Leadership, by way of having clear Vision & Mission policies. These are translated into organizational goals and objectives. Accordingly necessary organizational arrangements are made available to achieve goals and objectives.

##### The Top management of the Institute comprises of :-

1. Governing Body (GB)
2. Local Management Committee (LMC)
3. Principal
4. Head of the Department (HOD)
5. Faculty as chairpersons of various committees

The top management of the Institute jointly formulate the action plan for marching towards its vision and Mission. Based on the Vision and Mission of the Institute and inputs from various stakeholders, the Quality Policy was drafted. The Governing Body (GB) gives general guidelines for appropriate governance to realize the vision. The top management provides effective academic leadership to the faculty, by setting goals and involving them in participative decision-making process not only to achieve the vision, mission and goals of the institute but also in building the organizational culture.

The perspective plans of the Institution are formulated by its top Management representatives with an objective of progressing towards the realization of the vision. Also, the inputs from the stakeholders are considered for inclusion. The plans are reviewed periodically with due consideration of following aspects:-

1. Teaching and learning
2. Research and development
3. Community engagement

4. Human resource planning and development

5. Industry interaction

6. Student training and placement

**Perspective plans of the Institute are as follows:**

1. Permanent Affiliation by RTM Nagpur University, Nagpur

2. To establish Centre of Higher Learning & Research

3. To start PG program in Engineering

4. To obtain 2(f) & 12(B) recognition by the UGC

5. To provide Academic Autonomy to the Institute

6. To establish Incubation Centre

7. To establish design center and center of excellence

8. To collaborate with other organizations for community development

Teachers are actively involved in the decision making process through various committees. They are consulted directly or indirectly by the top Management through statutory bodies such as Governing Body, Local Managing Committee and & various College level Committees like as , Purchase Committee, Library Committee, Grievance Redressal Committee. These committees are headed by Teachers with active participation of other members. In addition to this, Teachers regularly participates in the Monthly Progress review meetings, Meetings with Heads, Meetings with Class Teachers.

**6.1.2 The institution practices decentralization and participative management**

**Response:**

All academic and administrative activities are decentralized and operational management decisions are taken based on discussion and deliberations in the meetings of various Committees constituted at College level. The Institute promotes a culture of participative management which enables faculty, staff and students to voice their opinions and suggestions including constructive criticism in day to day functioning of the Institute.

From the academic year 2013-14, powers of preparation of financial budget are delegated to the Heads of various sections of the Institute. Earlier to this, the budget was prepared by the Account Section of the Principal Office. At the end of the academic year, management convenes the meeting of head of departments for the Annual Operation Plan (AOP) and all the departments are asked to submit their budgetary provisions for the next academic year . The Heads of the Departments conduct departmental

meetings for budget preparation in which the important aspects of the requirements of the Departments such as human resources, equipment, laboratory materials, books, journals, various events/activities and other aspects are discussed and departmental budget is prepared. This is brought to the notice of the Head of the Institution who in turn takes it up to the Management for further action. Important suggestions from the students, parents are also incorporated in the budget preparation. Thus, the participative decision-making ensures total participation of all the people concerned. The departmental budget is approved in the finance committee and considering all approved departmental budgets, final budget of the institution is prepared. After passing it in the meeting of Local Managing Committee, Principal puts it in the meeting of Governing Body for its final approval. After final approval, Principal communicates the same to the heads of departments. Financial powers for taking decision up to Rs. 25,000/- are also given to the heads of academic sections.

Thus, the culture of participative management empowers members with freedom to express their opinions, assess pros & cons of a decision being taken for improvement and even while meeting the requirements. Participative management allows collaboration & co-operation between departments and functionaries thereby improves the quality of accomplishment of task ahead.

## 6.2 Strategy Development and Deployment

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

#### Response:

BDCE is established in the year 1983. One of the dream of the founder President Late Shri Bapuraoji Deshmukh was to get BDCE recognized as the Centre of Higher Learning and Research in the rural area. For getting the recognition of centre of research, there were certain specific requirements/ norms framed by the Nagpur University. In order to fulfill this dream, Governing Body of the institute formulated certain Perspective Plans which includes perspective planning for Teaching and Learning, Research and Development, Community Engagement, Human Resource Planning and Development, Industry Interaction, Internationalization. Since recognition of the institute as centre of research was related with perspective planning for Research and Development, following actions were taken by the management during the span of 1983 to 2016.

**1.** Permanent affiliation for undergraduate courses namely BE Civil Engineering, Mechanical Engineering, Electronics Engineering, Production Engineering and Electrical Engineering was obtained from the affiliating university during the academic year 2004-05.

**2.** Management of the Institute encouraged faculty of the college to acquire higher education. Under this policy many of the teaching staff acquired Post Graduate and Ph D Degrees.

**3.** Management also encouraged faculty to publish their research papers in the National, International conferences, Journals. Financial assistance for acquiring higher degrees and for publication works was provided by the Management.

**4.** During the academic year 2004-05 i.e. after acquiring permanent affiliation and availability faculty with Ph.D.degrees, institute got recognition of Rashtrasant Tukadoji Maharaj Nagpur University as the Centre

for Higher Learning and Research for the subjects Applied Physics, Applied Chemistry, Applied Mathematics, Mechanical Engineering and Electronics Engineering.

5. Candidates desirous of acquiring M.E. and Ph.D. degrees started to get registered at the BDCE Research Centre.
6. For fulfilling one of the condition for recognition of centre of research, institute applied for M.Tech. Electronics PG Course and got approved the same from AICTE, New Delhi in the academic year 2007-08.
7. Institute was again permitted to start another four M.Tech. Courses namely Computer Science and Engineering, CAD/CAM, Structural Engineering, VLSI from academic year 2012-13.
8. Later on, Institute got UGC Recognition under 2(f) and 12(B) in the academic year 2012-13.
9. After UGC recognition under 2(f) and 12(B) , faculty started applying for financial assistance under schemes of Major/Minor Research Projects. Soon Efforts of the Management proved worthy and in the academic year 2013-14 one research project of Applied Physics Department got financial grant of Rs. 14.38 from UGC, New Delhi.
10. Institute got permanent affiliation for remaining Under Graduates Courses namely BE Computer Engineering, Information Technology and Electronics and Telecommunication Engineering from the affiliating university in the academic year 2016-17.
11. After having permanent affiliation for the remaining subjects/courses , during the same academic year i.e. 2016-17, institute again got recognition for Higher Learning and Research Centre of Rashtrasant Tukadoji Maharaj Nagpur University for the subjects Civil and Electronics and Telecommunication Engineering.
12. At present , being one of the oldest Centre for Higher Learning and Research in the Vidarbha area, total 52 students out of 185 registered have got Ph.D.degrees from the BDCE Research Centre.

In this way, activity of Perspective plan to establish BDCE as the Centre for higher learning and research is successfully implemented and now institute is being recognized for its significant contributions in research and development in Science, Engineering and Technology.

File Description	Document
Strategic Plan and deployment documents on the website	<a href="#">View Document</a>
Link for Additional Information	<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 Governing Body, being the statutory body is the custodian of the Institution, Chairman/Member can guide/support directly or indirectly in the areas of expertise or position, Approval of Mission, Vision and Goals, Set short term and Long Term Goals, Developing the Strategic plan – for 5 Years, Creating Research Environment, Adapting Good Governance Practices, Mentoring, Academic partnerships, Entrepreneurship, Industry, Interface, Networking, Budget Approval.

**The Governing Body** of the institution is constituted as per the norms of AICTE, New Delhi. Its composition is as below:

- |                          |                     |   |
|--------------------------|---------------------|---|
| 1. Mr. Suresh Deshmukh   | - Chairman          | - (Nominee of YRES)                     |
| 2. Mr. Satish Raut       | - Member            | - (Nominee of YRES)                     |
| 3. Mr. Sharad Deshmukh   | - Member            | - (Nominee of YRES)                     |
| 4. Dr. Dilip Dhande      | - Member            | - (Nominee of YRES)                     |
| 5. Mr. Sameer Deshmukh   | - Member            | - (Nominee of YRES)                     |
| 6. W.R.O, AICTE, Mumbai  | - Ex-Officio Member | - (Nominee of AICTE, New Delhi)         |
| 7. Prof. N.M.Gatphane    | - Member            | - (Nominee of AICTE by WRO)             |
| 8. Prof. Vasant Ghorpade | - Member            | - (Nominee of Affiliating University)   |
| 9. Mr.Gulabrao Thakre    | - Ex-Officio Member | - (Nominee of State Government)         |
| 10.Dr Sunil Deshmukh     | - Member            | - (Nominee of State Govt. Educationist) |
| 11.Dr.Girish Thakre      | - Member Secretary  | - (Nominee of YRES)                     |

**Local Managing Committee** is another statutory body constituted as per norm of Maharashtra University Act, 1994. The composition of LMC is as follows:

- |                          |            |                               |
|--------------------------|------------|-------------------------------|
| 1. Mr. Suresh Deshmukh   | - Chairman | - President YRES, Wardha      |
| 2. Mr. Satish Raut       | - Member   | - Vice President YRES, Wardha |
| 3. Mr. Shashank Ghodmare | - Member   | - (Nominee of YRES)           |
| 4. Dr. Dilip Dhande      | - Member   | - (Nominee of YRES)           |
| 5. Dr. Dilip Gode        | - Member   | - (Nominee of YRES)           |
| 6. Mr. Sameer Deshmukh   | - Member   | - (Nominee of YRES)           |

7. Dr. Mahendra Choudhari	- Member	- (Teaching Representative)
8. Dr. Sharad Ingle	- Member	- Teaching Representative)
9. Dr. Dipak Dandekar	- Member	- (Teaching Representative)
10.Mr.Vilas Darne	- Member	- (Non Teaching Representative)
11.Dr. Girish Thakre	- Member Secretary	- (Principal, BDCE)

### **Functions of various bodies:**

#### **A. Governing Body**

1. The Strategic plan and its execution, HR policy, income and expenditure pertaining to the institution are discussed and approved in the Governing Body.
2. Governing Body meets two times in the year to review the academic administration, research and development, testing and consultancy services and any other agenda planned for the growth of the institution. Major policy decisions are being taken in such meetings.

#### **B. Local Managing Committee**

1. To discuss the budget and financial statements and forward it to the GB for approval.
2. To recommend the GB about faculty requirement.
3. To review the results of semester examinations and suggest corrective steps.
4. To convey the recommendations of Local Enquiry Committee for compliance.
5. To recommend about new courses.
6. To review performances of staff and suggest promotional polies for them.
7. To review Placement activities, R&D works and Faculty development issues.
8. To study departmental financial budgets and recommend it to GB for final approval.

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:** D. Any 2 of the above

File Description	Document
Screen shots of user interfaces	<a href="#">View Document</a>
ERP Document	<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>

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

**Response:**

Meetings of various bodies/Cells/Committees are conducted at regular interval in the institute, Minutes of each meeting are recorded properly. Decisions of implementation of all activities are taken based on the recorded minutes. Implementation of introduction of Self Appraisal Reports,Organization of Regular Parents Meets, Construction of Canteen Building, Introduction of Scheme of Concession in College fees, Organizations of International Seminars/Workshop/Conferences and introduction of Campus Surveillance system are some of the activities which are implemented successfully through the participative management system.

During the academic year 2012-13 , Anti-Ragging Committee of the Institute in its meeting held on 20th April, 2013 recommended to Principal of the institute to install CCTV cameras to cover all the important



areas like as open & Common places, corridors, main entrance gate of the BDCE campus. The main objective to install the cameras was to monitor the students activities in the campus. It was just one of the initiatives to make BDCE campus Student-friendly. For the safety of staff, students and visitors and the protection of property and buildings, CCTV cameras were also needed. Recommendation of the anti-ragging Committee was forwarded to Local Managing Committee where on 15/09/2013 it was discussed in detailed on the various issues like as Camera & DVRs locations and total cost of installations, lay out map and other devices required for the same. Further, LMC asked Purchase Committee to invite quotations for the same. On 1st of Jan 2014, Purchase Committee invited quotations from different suppliers and prepared comparative statements and finally submitted to the LMC. LMC in its meeting scheduled on 09/03/2014 recommended the matter to the Governing Body for final approval. GB in its meeting held on 09/03/2014 considered the said proposal of anti-ragging committee amounting Rs 1,28,550/-. With detailed discussion on the matter GB granted its final approval for installations of CCTV cameras in the BDCE Campus. The whole process of installation and working of CCTV System was completed on 14th July 2014.

Now BDCE campus is under 24 hour recorded CCTV surveillance with 16 CCTV Cameras and 1 DVRs of 16 Channels. Cameras are operated in an open surveillance manner (that is, there are no hidden surveillance cameras). There is also appropriate signage installed to advise that surveillance cameras are in use. Cameras are monitored on a continuous basis and supported by recordings that are kept for a limited time in the event of the need arising to investigate incidents. All CCTV surveillance is conducted in accordance with the Workplace Surveillance Act 2005.

In the second phase, it is planned to install CCTV cameras in the Central Library, Computer Centre, Workshop, Canteen, Auditorium, Sports Complex and Hostel Premises.

In this way, the activity of installation of CCTV cameras was successfully implemented based on the minutes of meetings of Anti-ragging Committee, Purchase Committee, Local Management Committee, Governing Body. Later on AICTE has also asked the technical Institutions to adopt Campus Surveillance system in their campus.

## 6.3 Faculty Empowerment Strategies

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

#### **Response:**

Satisfied employee is always an asset for the institute and can make the institute a productive place. The management of the institute has put several welfare measures and schemes for the teaching and non-teaching staff.

#### **Welfare schemes for teaching staff:**

1. Provident Fund Scheme as per government norms is applicable for all the regular employees
2. Group Insurance Scheme for permanent staff

3. Maternity leave with salary
4. Extended maternity leaves and permission to leave early for ladies staff members whose children are below one year is given
5. Gratuity
6. Special Casual Leave facility to attend Seminar, workshop and other University assignments.
7. Study Leave for qualification up gradation.
8. Campus Staff Quarters for selected teaching staff
9. Felicitation on award of Ph. D
10. 50 % concession in tuition fees of wards of teaching staff.
11. Training in Industry
12. Annual medical check up
13. Availability of Credit Co-operative Society and Store
14. Organization of Cultural Programmes
15. Wi- Fifacility/ Internet Dongles/Laptops have been provided for Key Post Staff.
16. Sportsmeets are organized every year.
17. Felicitations of meritorious wards of the teaching staff
18. Financial aid up to Rs 10 lakh in case of medical/accidental emergency
19. Remuneration in consultancy projects/works
20. Festival advances for teaching staff

**Welfare schemes for non-teaching staff:**

1. Provident Fund Scheme as per government norms is applicable for all the regular employees
2. Group Insurance Scheme for permanent staff
3. Maternity leave with salary
4. Extended maternity leaves and permission to leave early for ladies staff members whose children are

below one year is given

5. Gratuity is payable to the employees after 5 years of permanent service. All staff members are eligible for this benefit.

6. Study Leave for qualification up gradation.

7. Campus Staff Quarters for selected non-teaching staff

8. 75 % concession in tuition fees of wards of teaching staff.

9. Annual medical check up

10. Availability of Credit Co-operative Society and Store

11. Organization of Cultural Programmes

12. Sports meets are organized every year.

13. Felicitations of meritorious wards of the non- teaching staff

14. Financial aid up to Rs 10 lakh in case of medical/accidental emergency

15. Remuneration in consultancy projects/works

16. Provision of Festival advances

17. Uniforms for Security and Class IV staff.

18. Washing Allowances to Class IV Staff.

**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:** 24.86

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
20	67	42	24	36

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:** 2.4

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
1	3	1	4	3

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>

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

**Response:** 15.4

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
20	63	14	6	14

File Description	Document
IQAC report summary	<a href="#">View Document</a>
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:

The institute has an appraisal system which is very fair and transparent. It is designed in such a manner that it gives the gap analysis and improvement areas. The appraisal report gives the idea regarding competency achieved, other achievements and efforts to be undertaken for improvement. It also motivates the other faculty members to perform well. Each and every faculty member submits the self-appraisal form in the prescribed format endorsed by respective Heads of the Departments at the end of every academic year. Students Feedback about the staff is also considered in addition to self appraisal reports.

The review of the performance of the appraisal report is taken by the Governing Body. The strengths and weaknesses are identified and discussed, and accordingly the taken are communicated to staff through Principal. Based on the performance appraisal, staff is given annual increments and in some cases additional monetary benefits are provided to the deserving candidates. For certain achievement appreciation letters are given. The internal (Non statutory) promotions of non –teaching are usually carried out based on these reports.

#### Key points for teaching Staff appraisal are:

1. **Personal Information** – Staff member fills information about his/her Experience, added new Qualification gained, details of new appointment/promotion during the academic year
2. **Teaching and Learning Process** – Teaching Staff write about his/her contribution in delivering Theory, Practical and Project load.
3. **University Assignments** - Staff member write about his/her contribution in paper setting, valuation, moderation, meetings of BOS and other statutory bodies of the University.
4. **Administrative works** – Information about various administrative works carried out is mentioned under this section.
5. **Departmental Works**- Information about Laboratory setting, renovation, industrial visits and other activities is written under this section.
6. **Co-curricular assignments** – Involvement of staff in organizing Seminars/Workshops/ STTP/Patents filed is described in this section.
7. **Consultancy/Testing Assignment** – Contribution of staff in Consultancy/ Testing is described under this section
8. **Research and Development** - Contribution in paper publications, Guiding UG/PG/Ph D Students is described in this section.
9. **Books Publications** – Information about published books of the staff is given under this section.
10. **Contribution in corporate social life**- Staff member writes about his contribution at various corporate social platforms

11. **Achievements** – Staff member states the information about any award, recognition, he/she achieved during the academic year.

**Key points for non- teaching Staff appraisal are:**

1. **Personal Information** – Staff member fills information about his/her Experience, added new Qualification gained, details of new appointment/promotion during that academic year

2. **Laboratory Works** – Staff member write about his/her contribution in establishing/setting new laboratories, setting new experiments.

3. **Departmental Works**- Information about Specific duties / tasks assigned by heads of the department is written under this section

4. **Administrative works** – Information about various administrative works carried out is mentioned under this section.

5. **Assistance in Consultancy/Testing** – Contribution of staff in Consultancy/ Testing is described under this section

6. **Skill Development Programmes** - Information about SDP attended is written by the staff member.

7. **Contribution in corporate social life**- Staff member writes about his contribution at various corporate social platforms.

8. **Achievements** – Staff member states the information about any award, recognition, he/she achieved during the academic year.

## 6.4 Financial Management and Resource Mobilization

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

**Response:**

The accounts of the College are audited regularly as per the Government rules.

**Internal audit :**

The accounts and procedures of internal control of finance are carried out by the head of the accounts team on a day to day basis . The Accounting software, ‘Tally’ is used to manage the entries of day to day transactions. An internal approval system for all expenses is in place. Accordingly, every expense voucher is recommended by the head of the department and approved by the Principal/Director. All vouchers are audited by the account section of the institute on half yearly basis. It covers examination of revenues and payments. The management has created a system to ensure that cash book is checked on timely basis.

**External Audit :**

External auditor is appointed by the parent trust .The external auditor conducts statutory audit at the end of financial year. The report of external auditor along with audited Balance Sheet and Income & Expenditure account are is sent to the Management for review. The audit of accounts and submission of income tax returns are being carried out regularly for each year. Generally no audit objections are raised by auditor since the institution follows a good system of internal controls like calling quotations, comparison of rates, preparation of purchase order etc., and approvals at every stage of such implementation and due verification of goods and services that are obtained after delivery or completion of works. No expenses are incurred without proper approval or sanction by the head of the institution or HoDs of various departments. External audit is carried out examination of Vouching of all bank and cash transactions, Ledger scrutiny, analysis of fixed assets register, cash book, advance register, checking of bank reconciliation statement, scrutiny of all documents relating to purchase of fixed assets.

S.N.	Financial Year	Period of External Audit
1	2012-13	15/05/2013 to 15/06/2013
2	2013-14	20/05/2014 to 19/06/2014
3	2014-15	15/05/2015 to 10/06/2015
4	2015-16	25/06/016 to 22/07/2016
5	2016-17	05/05/2017 to 02/06/2017

**6.4.2 Funds / Grants received from non-government bodies, individuals, Philanthropists during the last five years (not covered in Criterion III) (INR in Lakhs)****Response:** 6.79

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
0.58	0.44	3.233	1.665	0.86888

**File Description****Document**

Details of Funds / Grants received from non-government bodies during the last five years

[View Document](#)

Any additional information

[View Document](#)

Annual statements of accounts

[View Document](#)**6.4.3 Institutional strategies for mobilisation of funds and the optimal utilisation of resources**

**Response:**

The college is self-financed and primary source of income is tuition and development fees received from the students. Fee regulating authority of state government approves the tuition and development fees. Besides this the Institute, being a research led institution, is also generating revenue by research projects. Judicious use of available funds is also helping the Institute in generating revenue by way of interest income. College has been well recognized for various testing consultancy assignments. Mechanical Department, Civil Department, Electrical Department are active in internal resource generation. Electronics Department, Computer engineering Department and IT Department are active in internal resource generation through organizing On-Line examinations for various external agencies.

College receives grants from external agencies such as AICTE, UGC, University for research, seminars, workshops, travel grants, lab development etc. The college also receives funding from various central and state government agencies for conducting seminars, workshops and short term training programs as sponsorship amount. This amount is exclusively used for intended purpose.

College closely monitors the expenditure and excess cash available in the institute kept as short term deposits to increase the fund flow. Other sources of income are Sale of Admission forms, Prospectus, Fine and penalties, admission processing fees, Bank Interest on Saving Account and Fixed Deposits, quarter rent from College Staff, Sale of old assets like computers, equipment etc. The corpus fund is maintained by the College, which is invested in fixed assets.

Budget allocation system for every academic year covering all the departments is in existence. Budgeted expenses are compared with projected revenue and necessary modifications are done as and when required. In case of deficit, College has opened OD account in the Bank of India, from which loan can be taken. Parent Society also provides financial assistance if required.

## 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:**

College is having its IQA Cell established in the academic year 2014-15. It functions on the basis of the guidelines framed by NAAC. It works towards improving and maintaining the quality of education, identifying and suggestive new ways of using teaching aids, developing suitable infrastructure and offering suggestions for the existing and any new courses. The IQAC meets regularly to plan, direct, implement and evaluate the teaching, research and publication activities in the College. Best practices in any Institution require extra effort and to sustain that effort it has to become an integrated part of the functioning of the institution, gradually. Institutionalization is the process of making the best practices an integral part of the institutional working. Following two best practices are institutionalized through the initiatives of IQAC since its formation :-



**1. Development of an effective and elaborate system of feedback.**

<b>Goal</b>	In order to know the impact of various policy measures implemented in the institution and response of various stakeholders , IQAC suggested an effective and multi -cornered Feedback System in the 2015-16. In order to comply this, institution has developed its own system of getting multiple feedbacks and taking the decisions in the right perspective .
<b>The Context</b>	The main contextual features and issues that had to be addressed by designing and implementing an effective feedback system were the knowledge about the role, relevance, impact and success of a particular policy decision for quality assurance and enhancement endeavors. Policy decisions are always found more fruitful and significant if suitable and favorable environment is created. In this context, system of feedback made IQAC more stronger and wiser for devising and implementing quality assurance plans.
<b>The Practice</b>	For obtaining best results, IQAC devised and implemented following system of feedback <ol style="list-style-type: none"> <li>1. Students Feedback</li> <li>2. Teachers Feedback</li> <li>3. Alumni Feedback</li> <li>4. Employers Feedback</li> <li>5. Parents Feedback</li> <li>6. PTA observations and Reports</li> <li>7. Social Community and Public Analysis</li> <li>8. Self appraisal Reports of employees.</li> </ol>
<b>Evidence of Success</b>	Implementing of this practice of getting structured feedbacks from all stakeholders and acting on its basis for developing future perspective plans was found to be largely successful .This system provided a comprehensive and integrated pool of observations information about degree of success or failure of various policy measures and the initiatives taken by the institution.
<b>Problems encountered and Resources required</b>	The main problems encountered in the implementation of this practice are: <ol style="list-style-type: none"> <li>1. Development of desirable and suitable feedback formats from all stakeholders.</li> <li>2. Different attitudes and aspirations of the different stakeholders</li> <li>3. There was confusion about inclusion of some parameters in the feedback formats</li> </ol> <p>Some of the motivated teachers and non teaching staff helped in compilation and analysis of the feedbacks.</p>

**2. Development of Mentoring System .**

<b>Goal</b>	In order to improve discipline and human interaction on the campus , IQAC suggested to implement mentoring system from academic year 2016-17.
<b>The Context</b>	Earlier to this, College was having system of class teachers or Class In charges, where they were handling problems of students related with teaching Schedule, examinations, tours, cultural programmes etc. In this process, strengths and weaknesses of the students in their personal life were not ascertained. In this context in order to overcome this problem, mentoring system was implemented so that mentors could help students by constant counseling.
<b>The Practice</b>	<p>Since the inception of this system, Mentorship is assigned to the teaching faculty of the institution based on the subjects and classes they handled. Each mentor has to look after 30 students for the period of education in the campus. Mentor prepares and maintain the mentor sheet of each student which includes academic as well as co- curricular and personal details of the student.</p> <p>Mentor helps the student to understand the organizational culture in the campus, provides guidance on personal issues. Mentor also points out strengths and weaknesses of the students and areas for development. Long terms carrier goals of the students are also set up by the mentors. Constructive suggestions are made to students and their parents for the development of their wards. Slow learners are given tutorials in their subjects. Health problems of the students are also dealt by the mentors. Students are motivated for higher studies, competitive examinations.</p>
<b>Evidence of Success</b>	Due to implementation of mentoring system, overall performances of the students have been improved. Students attendance has been increased. Mentoring is highly appreciated by the parents. Improved humanizing environment exist in the campus. Students started to use college dress code. Students keep respect and respects about the others.
<b>Problems encountered and Resources required</b>	Initially, students were reluctant to adopt this system because they were under impression that they have grown up and no need to care them. Also, their personal freedom could be restricted by this system. Later on they started to enjoy the system and now it is institutionalized very well in the campus. All faculty members and students of the institution are participating in this system.

**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:**

After formation of IQAC in the academic year 2015-16, after reviewing teaching learning process by way of analyzing of feedbacks of students, teachers, parents, employers and closely monitoring teaching learning process by the heads of departments, academic monitoring committee and analyzing students performances in various assessment examinations, IQAC suggested to make changes in the teaching learning system adopted earlier in the College. It can be seen by following two examples:-

## 1. Induction of Innovative Teaching approach

Apart from normal class room teaching, all the faculties were asked to adopt some innovative teaching methods to enhance the quality of the content delivered. The faculties were asked to make use of modern teaching aids and ICT enabled teaching and participative learning, extensive use of various tool viz, NPTEL, Simulations, Virtual Labs, PPTs and Charts. Faculty were encouraged to make use of videos as and when required to create interest in the subject. Faculty was provided Computers, Internet, Wi- Fi facility. Each department was provided with computer laboratories equipped with internet, LCD projectors and audio-visual aids to conduct such practices. Institute subscribed e-journals like IEEE, Springer and ASCE and faculty was asked to make use of these on line journals and facility of DELNET. The Institute encourages the faculty to use proactive teaching methodologies such as quiz, brain storming sessions, group discussion and NPTEL lecture videos for making the session effective. Impact of use of innovative teaching approaches was observed significantly. Clarity and understanding power of the students found to be increased. Their confidence was instilled. Students became self learner. Their performance in various assessments was found to be enhanced.

## 2. Induction of adjunct faculty/resource persons from industry

In order to develop a useful and viable collaboration between the educational Institutions industry, IQAC has also suggested another reform of teaching learning process effective from academic year 2017-18. The objective behind this reform was to enhance quality of education and skills by involvement of academicians, scholars, practitioners, policymakers in teaching, training, research, and related services on a regular basis and to attract distinguished individuals who have excelled in their field of specialization.

As per IQAC suggestion, management of the institution has agreed to hire eminent Professional/ Scientist/ Engineer, academicians and professional from industry having recognition at national/ international level and having outstanding published work as an adjunct faculty. Adjunct faculty or persons from the industry teaches the courses directly related to their specific expertise and professional experience or the areas of specialization. They also contribute to the Institution's activities like counseling of students, developing new Course(s) and pedagogical improvements. Further, IQAC also suggested to utilize the services of the adjunct faculty in service-related activities, such as sitting on departmental Committees, serving as advisors to faculty and/ or undergraduate and post graduate students, helping students network and active collaboration with the industry/ employer providing internship and job opportunities. The performance of every Adjunct Faculty is monitored at the end of assignment based on the "Performance Report" submitted to the Principal of the Institution for continuation/ renewal of tenure. As per the service conditions prescribed by AICTE /UGC, institute have hired 25 adjunct faculty in different courses for the academic year 2017-18.

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

**Response:** 4.4

#### 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
5	10	7	0	0

<b>File Description</b>	<b>Document</b>
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:** D. Any 1 of the above

<b>File Description</b>	<b>Document</b>
Details of Quality assurance initiatives of the 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:**

Sr. No.	Year	Incremental Improvements made
1	2012-13	2nd Shift of working started from 2012-13
2	2012-13	One UG & Four PG New Courses in Engg. & Technology were started
3	2012-13	Academic Calendar was prepared as per University norms
4	2012-13	Renewal of Centre for Higher Learning & Research was obtained
5	2012-13	Faculty encouraged to register for Ph D
6	2012-13	Construction of IT Building was started

7	2012-13	Online E-journals recommended by AICTE were prescribed for library	
8	2012-13	Granted UGC 2f and 12 B Recognition to the institution	
9	2012-13	Received AICTE Financial Grant under MODROB AQIS Scheme	
10	2012-13	Activity of organization of Annual International Conference IC-QUEST started	
11	2012-13	Committee for SC/ST, Grievance Redressal Cell was established	
12	2012-13	Internal Compliant Committee was established	
13	2012-13	Mentorship system was introduced	
14	2013-14	Student Centric methods such as participative learning started	
15	2013-14	Faculty encouraged for publication of research papers in journals.	
16	2013-14	Department wise Budget preparation was initiated	
17	2013-14	New UG Course at BE level was started in 2nd Shift	
18	2013-14	Wi -Fi System was brought in to operation	
19	2013-14	AICTE Grant under IIPC was received	
20	2013-14	Constitution of IQAC	
21	2014-15	CCTV Cameras were installed in the Campus	
22	2014-15	Use of ICT facilities in teaching learning process was started	
23	2014-15	Placement of the final year students was increased	
24	2014-15	Faculty appointed for PG Courses on regular approval basis	
25	2014-15	E Governance in system comes into existence through ERP Software	
26	2014-15	New UG Course at BE level was started in 2nd Shift	
27	2014-15	Received UGC Grant Under MRP for Physics Department	
28	2015-16	Bandwidth of internet was increased	
29	2015-16	New Canteen Building comes into operation	
30	2015-16	Institute participated in NIRF	
31	2016-17	Centre for Higher Learning & Research recognized by RTM Nagpur University for Electronics & Telecommunication subjects started	
32	2016-17	Granted Permanent Affiliation to BE Computer Engg, Information Technology and Elec & Telecommunication Engineering Courses	

## 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:** 4

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
1	1	0	1	1

#### File Description

#### Document

Report of the event

[View Document](#)

List of gender equity promotion programs organized by the institution

[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:**

a) Safety and security: - College and Hostel campus is totally secured. Security guards are appointed for 24x7

b) Counseling: Counseling is provided whenever it is necessary.

c) Common Room: College has common rooms for girls in every department.

In addition to the above CC TV surveillance is provided in the college campus. College has separate girls hostels in the campus and 24 hrs ambulance facility is available. Girls hostels are surrounded by the staff quarters and warden quarters. Institute always motivates the girls to participate in various programs such as Dahihandi, Shivjayanti, Tree plantation drive, Annual social gathering, Departmental association cultural programs etc. Mostly the inaugural functions and receptions are dominated by girls. Girls always participate equally in all the technical, social and cultural programs and excel well in all the events.

Attempt is made to motivate and accommodate girls in the executive bodies of all the departmental

associations. Also Sex Harassment Prevention Cell and Women's Grievance Redressal Cell are established to take care of.

### 7.1.3 Alternate Energy initiatives such as:

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

**Response:** 0

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

7.1.3.2 Total annual power requirement (in KWH)

Response: 130

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:** 13.9

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

Response: 4420

7.1.4.2 Annual lighting power requirement (in KWH)

Response: 31800

File Description	Document
Details of lighting power requirements met through LED bulbs	<a href="#">View Document</a>

### 7.1.5 Waste Management steps including:

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

**Response:**

**Solid Waste Management:**

- Paper waste is regularly sold to outside agency. The exam answer sheets are shredded and sold to licensed purchaser through proper tender.
- The debris and waste paper are not burnt in the campus and instead they are put into compost pits for manure production which is used for gardenening.
- Clean and healthy campus is ensured through regular sweeping of floors, corridors and cleaning of toilets. Modern sanitary equipment and devices are used for cleaning purpose.

**Liquid Waste Management**

The college takes all the care regarding the chemicals or other materials which may turn out be hazardous in nature.

- One of the places where chemicals are largely used is the chemistry laboratory. The chemicals are given in diluted form to the students at the time of experiments.
- In addition to diluting the chemicals, teachers & supporting staff warn about the possible dangers of mishandling or careless handling of those chemicals.
- Chemicals are handled & stored in safe area in the chemistry lab.
- Campus sewage water is collected by proper drainage system and disposed off properly.
- Water in the Fluid Mechanics lab is collected in the GSR and reused for practical.

**E-Waste Management:**

- UPS Batteries are recharged / repaired / exchanged with the suppliers.
- Electronic and Computer accessories declared “Obsolete” are collected at one place and sold to the concerned agents.
- Attempt is made to reuse old spare parts
- The college administration has a buy-back policy where the old or damaged computer peripherals are exchanged for new ones. The damaged computers are also used for demonstration purpose. UPS batteries are recharged / repaired / exchanged by the suppliers. The Waste part of computers like compact disc is used by the students for decoration and participation in competition on “Best from Waste”.

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

**Response:**

**Rain Water Harvesting:**

- The terrace water of the college building is collected and arrangements have been made to harvest and percolate this water within the campus. The arrangement is made to harvest rain water in all the departments. All the rainwater falling on the slab of the department is collected and made to absorb



within the departmental open space. Recharging of the campus water is done. All the hostel and college campus water requirement is met by the college campus bore wells and overhead tank.

### 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:**

#### **Green Practices**

**Green practices are adopted in the institution.**

Few Students and staff of the institute use Bicycles, Public Transport such as Autorickshaws, state transport buses, Pedestrian Friendly Roads: All the roads in the campus are pedestrian friendly.

Plastic free campus:- Yes. Use of plastic is restricted in campus and all the waste plastic wrappers found in the campus are properly collected and disposed off.

Paperless office:- Attempt is being made to make office paperless. Most of the notifications are circulated through whatsapp groups, emails etc. It has been made mandatory across the Institution to use the paper optimally for Xeroxing and other purposes. Papers already having printed material on one side are reused for internal communication and notification purpose.

Green landscaping with trees and plants:- The College campus is totally eco-friendly. The tree Plantation Drive is organized every year by the students and staff of various departments to make the campus lush green. Every building in the campus is surrounded by trees and lawns. The college has

- A landscape consultant(Gardening Officer)
- Garden supervisors / gardeners
- A comprehensive set of garden equipments
- The campus has all the variety of fully grown trees such as Neem, Karanj, Bakul, Saptaparni, Gulmoar, Askoka etc.
- The campus has huge state of the art completely developed and maintained gardens covering complete road front of more than 25000 sq ft. as well as all the departmental internal open areas are covered with gardens.

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

**Response: 1.29**

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
2.67	3.5	10.38	3.13	4.18

File Description	Document
Green audit report	<a href="#">View Document</a>
Details of expenditure on green initiatives and waste management during the last five years	<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
Resources available in the institution for Divyangjan	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
link to photos and videos of facilities 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:** 12

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
4	4	2	2	0

File Description	Document
Number of Specific initiatives to address locational advantages and disadvantages	<a href="#">View Document</a>
Any additional information	<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:** 11

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
2	2	5	1	1

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

**7.1.12****Code of conduct handbook exists for students, teachers, governing body, administration including Vice Chancellor / Director / Principal /Officials and support staff****Response:** No

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>

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

Response: Yes

File Description	Document
Provide URL of website that displays core values	<a href="#">View Document</a>

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

Response: Yes

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

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

Response: Yes

File Description	Document
Any additional information	<a href="#">View Document</a>
Provide link to Courses on Human Values and professional ethics on Institutional website	<a href="#">View Document</a>

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

Response: Yes

File Description	Document
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:** 23

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:**

Bapurao Deshmukh college of Engineering organizes various activities on the occasion of national festivals and birth or death anniversaries of the great Indian personalities. Institute usually celebrates Ambedkar Jayanti, Gandhi Jayanti, Swami Vivekanand Jayanti, Bapuraoji Deshmukh Death Anniversary, Laxminarayan Day, Teachers Day, Engineers Day, and Chhatrapati Shivaji Maharaj Jayanti etc. Mainly the activities to promote 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 are organized.

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 working is completely transparent in all the matters like financial, academic, administrative and all other auxiliary functions. The institute functions as per the managerial hierarchy and through various committees and cells constituted for addressing concerned issues. The following committees have been constituted for transparent working of the institution. 1) Finance Committee 2) Library Committee 3) Sports and Cultural Committee 4) Anti Ragging Committee 5) Academic Monitoring Committee 6) Purchase Committee 7) Schedule Caste and Schedule Tribe Committee 8) Internal Complaint Committee etc.

## 7.2 Best Practices

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

#### Response:

#### 1. Title of the Practice: **FREE PROJECT LABORATORY: THE FIRST LAB**

#### 2. Objectives of the Practice:

- 1.To inculcate the spirit of creativity
- 2.To develop homogeneous group of enterprising engineers
- 3.To build competitive spirit
- 4.To enhance employability

#### 3. The Context:

Industry needs the engineers having acquaintance with the latest developments in technology along with the basics of the engineering. Facilities like free project laboratories are very much essential in this context.

#### 4. The Practice:

The seeds were sown long back in 1996 when IIT-Bombay started its activity TECHFEST. A group of students along with a faculty started working together to build the models on robotic applications for participating in Techfest 1996 and later on it was officially established in 2006.

The students group of the lab also conducts workshops in many local schools, where children are allowed to interact and participate in technical activities. The club in the real sense is contributing to the promotion of science and technology spirit among school children, one of the objectives of Rashtriya Avishkar Abhiyan (RAA) undertaken by the Government of India.

#### 5. Evidence of Success:

The results of the practice are very encouraging. The feedback of the past members and their employees is also encouraging. The lab activities always motivated the students to think out of box.

#### 6. Problems Encountered and Resources Required:

Scarcity of funds and technically trained human resources is the main problem we are facing. Funds from Management and dedicated students along with keenly interested faculty are the main resources required.

#### 2. Title of the Practice: **DEPARTMENTAL STUDENTS' ASSOCIATION**

#### 1. Objectives:

- 1.To improve overall personality of the students
- 2.To conduct guest lectures

## 3.To organize various co-curricular and extra-curricular activities

**2. The Context:**

There is a need to provide an open platform to the students to bring out their hidden talents. Departmental association which is constituted and managed by the students provides such platform where students can build their personality, which is very essential in the contest of growing competition in the market.

**3. The Practice:**

Every Year at the beginning of the academic session office bearers of the association are elected along with a faculty advisor. Also various cells are constituted to manage different activities. The activities are planned for a semester. This is a platform where all the students get opportunities to showcase their talents in divorced areas and get chance to improve and acquire various skills such as presentation, anchoring of the program, stage daring, communication, etc.

**4. Evidence of success:**

Students are actively participating in different activities, it makes a positive improvement in students like personality development, communication skills, management skills, programming skills etc. As students and faculty work together, it builds a team spirit among students.

**5. Problems Encountered and Resources required:**

Students being overburdened hesitate to take part in activities. Motivating students for participation is a challenge. Monetary contribution from students as well as Management and devoted students is the main requirement of this practice.

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

### **Upliftment of the economically and socially backward students from rural area:**

Institution distinctively of its vision, priority and thrust functions to cater to the needs of the rural area population who are economically backward in terms of educational facilities especially in remote villages of Wardha District. Late Shri Bapuraoji Deshmukh founded this institution with a strong belief that **“Teaching is a Mission and not a Profession!”** Our institution makes the technical education within the reach of the poorest of the poor.

The institution mainly aspires to focus on the academically bright students from non-urban backgrounds who are daunted by the change of cultural issues, overall personality development of the students along with the academic excellence and involve them in real time projects for understanding and solving grassroot level problems with technology solutions and bringing about social changes is one of the best practices used to realize the goals of the institution.

Stated below our achievements and Indigenous developed products such as pedal operated leaf collector and sweeper machine, coconut coir fiber extracting machine, machine for separation of liquid content from cow dung, self propelled multi crop reaper machine, solar water distillation, coconut de-husking and de-shelling machine, manually operated soya bean reaper etc. reflect that we are committed to serve the rural masses by means of our students who have real ideas of rural masses and their problems and accordingly provided technical solutions too.

The institution mainly engages to liberate the students of weaker sections of the rural areas of the economic, social and educational constraints. The college supports them to get a chance to study with minimum expenses that helps them to grow as an individual and make them employable and achieve success, capable of handling problems and lead a successful life. The institution also adopted such students and provided social dimension to the educational system of the college and showcased our social responsibility and commitment. The institution also provides free hostel facility to these poor students. As a result of this policy, many of college Alumni who are from rural background have a large presence in the industry in India and overseas and possibly technical leaders in their industries, government sectors and other academic institutions. Alumni have good success rate in their respective area because of the depth of knowledge in their subject area, overall grown personality. Some of college alumni despite their rural background and underprivileged section of the society are standing on their feet with successful career as enlisted beneath:

1. Bhushan Raut, Assistant Manager (CEAT LTD)
2. Amol Pokale, Senior test Engineer (Zensar Pvt Ltd, Pune)
3. Suruchi Buche, Sales Tax Inspector (Govt. of Maharashtra)
4. Narendra Bawane, Principal, JIT Nagpur
5. Dhananjay Parbat, Head, GP Nagpur
6. Guntavatey, Jr. Scientist, BHEL, Bangalore
7. Manoj Daigavane, Principal, GP. Gadchiroli.
8. Sudesh Hole, Sr. Engg., Mahavitrans, Pulgaon



## 5. CONCLUSION

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### **Additional Information :**

B.D.College of Engineering, Sevaram is run by Yeshwant Rural Education Society , Wardha . It is established in the year 1959. At present 22 High Schools, 10 Junior Colleges, 4 Senior Colleges in Arts & Science and 1 Engg. College is run by the Society.

### **Concluding Remarks :**

B.D.College of Engineering Sevagram is established in 1983. Initially, having three branches in Engineering namely Production Engineering , Civil Engineering and Power Electronics, now the institute has grown like a big tree, running five courses at U.G. level, five courses at P.G. level in Engineering and one course at P.G. level in Management. The institute is recognized as the Centre for Higher Learning & Research in four engineering subjects for Ph.D.It is also recognized by UGC, New Delhi under section 2(f) and 12 (B).

As the institute has 34 years history, well experienced and qualified staff is working in it. Because of the dynamic leadership of the Management and good Vision, the institute is also doing well on administrative ground. Institute was awarded grade A by Government of Maharashtra. Three UG level courses were accredited by NBA in the year 2004 for the period of three years. Being having a senior faculty in the institute, faculty contribution on various bodies of University is good. Extra co-curricular activities are regularly conducted in the institute. The institute regularly organizes International , National conferences, STTP, Seminars and Workshops.

Padmavibhushan Dr. Jayant Naraliker, Padmabhushan Vijay Bhatkar , well known Astronomer Padmashri T. Padmanabhan have visited the college and delivered their talks on their respective subjects. Alumnae of the institute are working on commanding positions in various organization around the world . Thus in conclusion, institute functioning is excellent and running nicely on its vision and mission.