



# **SELF STUDY REPORT**

**FOR**

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

**GOPALAN COLLEGE OF ENGINEERING AND  
MANAGEMENT**

SONNENAHALLI, HOODI VILLAGE  
560048

[www.gopalancolleges.com/gcem](http://www.gopalancolleges.com/gcem)

Submitted To

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**

**BANGALORE**

**December 2019**

# 1. EXECUTIVE SUMMARY

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## 1.1 INTRODUCTION

Gopalan College of Engineering and Management (GCEM) is established in the year 2010 by the founder Mr. C. Gopalan, an architect, with the objective of developing and constructing residential apartments in Bangalore. GCEM being a decade old institute that provides quality technical education in a diverse and multi-cultural environment.

GCEM celebrates the power of knowledge, cultivates vision and encourages new ideas, while also inculcating human values. Its transformative engineering education includes a broad-based curriculum underscored by multi-disciplinary courses and cross-faculty enrichment, as well as special programs that allow students to realize their potential and make them competent, inspired and successful professionals.

Gopalan College of Engineering and Management is affiliated to Visvesvaraya Technological University (VTU), Belgaum, approved by AICTE, New Delhi and recognized by Government of Karnataka. GCEM is an ISO 9001:2015 certified institution.

Initially, GCEM started with four undergraduate programs with an annual intake of 240. The college is located in Hoodi with a campus area of about 7.17 acres. At present, the Institute has an annual intake of 300 students for undergraduate programs in 5 disciplines. In addition, the Institute has set up Research Centers in 5 departments to promote research activities.

GCEM has state-of-the-art infrastructure, creating an environment for progressive learning and development. It also has computer and internet facilities, modern workshops, ICT enabled classrooms, seminar halls, auditoriums and well-stocked libraries, sports and games fields including indoor Football and Cricket ground.

While students at GCEM immerse themselves in academics, the college has a lot in store for them outside the classroom. Student life includes participation in cultural, sports, recreational and co-curricular activities. In short, at GCEM students will find an academic and social environment where everyone- from faculty members to peers helps shape their future.

### **Vision**

To be the institution of choice with contemporary knowledge coupled with values contributes to the society through excellence in technical education and research by continuous innovation.

### **Mission**

- Achieving Excellence in Teaching-Learning Process Using State-Of-The-Art Resources
- Develop industrial collaborations to promote research and innovation capabilities of faculty and students
- Inculcate entrepreneur skills with high integrity to serve society

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

### Institutional Strength

1. The institution has provided an accomplished space and a well-established infrastructure for better teaching and learning.
2. The institution also poses a close relationship between student and academic affairs by constantly improvising the involvement of students in all areas of academic activities.
3. GCEM starts upgrading the research and innovation activities by establishing GRIT.
4. Despite being located in the metropolitan city (Bangalore), near IT hub GCEM has a location advantage with considerably less noise and air pollution which in turn provides and promotes suitable amphibians for teaching-learning.
5. The supporting management being an entrepreneur in nature provides an elegant opportunity for the carrier growth of students.
6. Students are provided internship facilities and attractive placements in our own industrial sister-concerns.
7. The institution provides an unbiased structure to educate other state students and accommodate faculty members from other states which stands as a unique nature to have unity in diversity.
8. Academic planning is well-thought-out with the flexibility to create success for all stakeholders of the college.
9. Our college has a well-developed ICT structure which enhances student's positive approach towards curriculum.
10. GCEM holds a superlative record of all teachers having an average experience of a decade. We are well equipped with 28% of teachers possessing Ph. D and appreciable number pursuing Ph. D.
11. GCEM has feathered caps with the processes of providing yearly salary increments to faculty members every year with a transparent mechanism of evaluation.
12. The full-time teachers are well committed to work and have a good sense of team spirit and always exhibit a willingness to recognize weaknesses and develop a plan to improve.

### Institutional Weakness

1. GCEM has to improve its curricular implementation by involving students enrolled in a subject related number of certificate/diploma programs.
2. We should work over the number of research projects funded by government and non-government agencies
3. The institution has a forecast to recognize and appreciate teachers who receive state, national and international recognition/ awards with incentives.
4. Sketch out the structure, it is observed that we must be essential and systematically grow to receive awards and recognitions for extension activities from government/recognized bodies.
5. Facilities for e-content development such as Media Centre, Recording facility are yet another area to be improved.
6. We stand less in count in the average percentage of students benefitted by Vocational Education and Training (VET) as we are adopting curriculum structure from VTU that cannot be altered as per our institution's needs.
7. As we are an infant institution our alumni fund contribution in records is minimum.

## **Institutional Opportunity**

1. Increase and strengthen external collaborations with industries to establish development in providing internship and carrier opportunities to students by numbering up initiatives to be made in the areas of placement, funding received and signing in MOUs.
2. Focus on excellence with an emphasis on areas in which the students should grow to satisfy the demand to meet up their specialization or peruse higher education.
3. Involve more faculty members in research through incentives. As a structured action plan, we are looking up to increase external funding to increase revenue through indirect cost recovery.
4. Planning to tap donors to enhance perception to improvise relationships between all stakeholders.
5. Daily records of library usage by students and faculty can be improved through the systematic procedure.
6. The institution has made up its structure to improvise carrier guidance and preparing the students to appear for competitive exams,
7. We have also proposed a policy to increase scope towards research and innovations by expanding the functioning of GRIT.
8. Decisions towards supporting our faculty members with financial aids to attend professional development programs will function fully-fledged.

## **Institutional Challenge**

1. Our society itself witness a great change in the behavior of students, which reflects in opting for a professional course like engineering, which has considerably brought down the number of enrolment.
2. It is not so good to observe the reduction of well-qualified students to enroll in the program. Students increasingly possessing an entitlement negative mentality towards professional courses.
3. In a few circumstances, the growth of administrative and service functions required to be in obedience with unfunded mandates which brings down the funding system.
4. Declining resources from the other bodies and increasing dependence on tuition profits.
5. Student's impact on the usage of mobile phones and other electronic gadgets has increased the sense of fantasy in playing games through them rather than enhancing learning.
6. The percentage of students preparing for competitive examinations for higher studies gradually declined.
7. Reduced campus placements due to various reasons such as recession and automation in industries

## **1.3 CRITERIA WISE SUMMARY**

### **Curricular Aspects**

GCEM takes at most care in building an effective mechanism to deliver the curriculum. We do a continuous analysis to give a proper watch eye to our weakness and work on it. As a way to ensure our reliability, it is observed we have a growth record on the participation of our full-time teachers in the discussion held by VTU for syllabus formations.

The institution being affiliated to Visvesvaraya Technological University Belagavi, Curriculum (CBCS & OBE), syllabus and the overall guidelines are followed as prescribed by the university. Keeping that as a guideline we structure our academic activities feasible by formulating an academic calendar that consists of all

activities planned for that semester. We are also in the process of continuous monitoring and improvising our academic flexibility pattern.

To enrich the curriculum, we teach ten courses which are imparted to integrate cross-cutting issues relevant to Gender, Environment and Sustainability, Human Values and Professional Ethics. We also conduct value-added courses every year to enhance a better knowledge transfer of contents delivers with its application. To strengthen the enrichment of the curriculum we have made a policy decision to conduct one value-added course per semester in each program. A structured feedback system for the syllabus of all the courses in the curriculum is organized in the institution where the entire stakeholder is involved in every step.

GCEM has extended its wings from this academic year to grade up the system of feedback with better action plans such as communicating the feedback report to university officials and participating in curriculum revision workshops.

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

The most important thing in the teaching-learning process of this institute is achieved by recruiting good competent and well-qualified teaching faculty. The faculty provides a highly conducive teaching-learning environment that includes traditional teaching, workshops, technical seminars, group projects, distinguished lectures, industry visits, quizzes, assignments, placement training, technical fests, project exhibitions, conferences and so on

In order to have smooth conduction of teaching, meticulous planning is done prior to the commencement of each semester and the special care taken for first-year students by conduction induction programs as per VTU regulations. Weekly syllabus completion status is monitored by the principal. Tests and tutorials are conducted on a regular basis. A feedback mechanism is taken by each faculty to identify the strength & areas for improvement so that it helps the faculty to implement the suggestions given by the students in the remaining part of the semester.

The institute is the part of the centralized admission process of the state government (CET Cell) and the admissions are strictly followed as per the rules & regulation of the Government of Karnataka. The institute has developed the academic plan, course plan & lesson plans. The student-centric methods like experiential learning, problem-solving methods, etc., are employed at the program level and course level. Three Internal Assessments are conducted for each theory course as per the calendar of events in a fair & transparent manner. The Course Instructors evaluate the test books within three working days from the date of conduct of the test. The scheme of evaluation of the CIE questions is shared with students while distributing the blue books and also discussed to clarify doubts if any.

IQAC of the College supported by the professors monitors all the curricular, co-curricular and extra-curricular activities in the college and ensures to provide all the necessary support to teachers and students for better teaching and learning processes. The faculty members are effectively using e-resources and ICT tools to improve the teaching and learning process. The mentoring system and PTM helps to interact with students and parents regularly to solve their issues.

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

GCEM is established in 2010, by Visionary Educationist and Social Entrepreneur Mr. C Gopalan. GCEM is established among Karnataka's leading institutes in professional education. The hallmark traits of GCEM students are balancing skill sets with key strengths and doing it with a winner attitude. It is approved by AICTE, Affiliated to Visvesvaraya Technological University Belegavi Karnataka and ISO under 9001:2015 certified. Institute focuses on promoting research and innovation technology. At present nearly 18.52 % of teachers are recognized as research guides.

**Gopalan Research Innovation and Training Centre (GRIT)** is established to promote innovation and research activities on the campus. It promotes undergraduate research, and innovation as well as provides training on the recent advancements in the different disciplines of engineering to aspiring young college students. G R I T closely works with industries under MOU to address R&D projects of mutual interest. Some of the key experimental facilities planned in GRIT include special-purpose Energy and Environment lab, Experimental Aero Lab, Design and Computation Lab, Fabrication and Testing, Sensors Lab, Virtual Instrumentation Lab.

GCEM received its approval from MHRD to establish **Institution's Innovation Council (IIC)** on its campus in September 2019. The external members include eminent personalities from Industry, academia and research labs. Research Publications and number of Ph. D awards per teacher are considerably increased. We have a fair record of extension activities like a neighborhood community, holistic development, NSS, Red Cross, etc. The number of functional MoUs with institutions of national, international importance, other universities, industries, corporate houses, etc. during the last five years is increased.

We have planned better in quantity improvement of the number of linkages for Faculty exchange, Student exchange, Internship, Field trip, On-the-job training, research and grants for research projects and Grants sponsored by the government and non-government sources such as industry, corporate houses, international bodies, endowment, Chairs (INR in Lakhs).

### **Infrastructure and Learning Resources**

GCEM has state-of-the-art infrastructure with physical facilities like well ventilated, spacious classrooms, tutorial room's, discussion rooms, seminar halls, laboratories catering to the complete VTU syllabus and beyond, faculty rooms, restrooms, LCD projectors in every classroom, amphitheater, media center, computer labs, Wi-Fi connectivity, Centres of excellence, incubation Centre, language lab, computer center, a well-established training, and placement department, well-stacked college & department library with e-resources facility, sports, and health center facilities and Hostel accommodation for boys & girls.

Football, badminton, Volleyball, etc., as well as a track-field for athletics, have been established. Facility for indoor games like table tennis, chess, carom, etc. are well Courts, playgrounds for various games inclusive of Cricket is organized. Students are provided with separate rooms to practice for cultural activities.

To enhance ICT usage in the teaching-learning process each faculty member is provided with a desktop. We stand good in a record of holding ICT facilitated classrooms. Media center with lecture capture solution facilities facilitates the students to view any number of times at a later time and helps faculty for self-improvement.

Our library is automated by Libsoft (version 9.8.0) and has 3216 Titles, 12513 Volumes, and 247 books in SC/ST Book Bank. The library is a member of the DELNET for the last 5 years. It is being extensively used for

ILL and searching the database of other member libraries. Our library is a member of VTU e-consortium and an institutional repository of NPTEL Video Lectures, Previous year question papers, project reports, manuals, etc. catering to different needs of the students and staff. Remote access is available for e-resources in the library. The average annual expenditure for the purchase of books and journals during the last five years shows a track of the increase in the purchase.

The inbuilt IT infrastructure enhances the learning process by supporting the entire building with Wi-Fi / LAN facilities for its students and staff with periodic updation as per the requirements. Leased line Internet Connectivity has a bandwidth of 100 Mbps.

We have planned to develop facilities for e-content such as the media center and recording facility.

### **Student Support and Progression**

Students are well supported with free admission to the economically backward students with the help of the government. The institution has a Students' Welfare Fund which assists economically backward students by proving financial support. The college has schemes for scholarships to the meritorious and socioeconomically backward students.

Career Counselling, Personality development, Entrepreneurship development programs are organized by the college through different cells for the benefit of students. Training and placement cell provides pre-placement guidance to the students for placement activities. The college organizes remedial classes for slow learners through its academic departments. The college Self Empowerment Cell organizes students' mentoring, personal counseling, and Yoga and meditation activities. The college celebrates International Yoga Day for the holistic development of all stakeholders in general and students in particular.

In these societies, the student members play both administrative and academic roles in organizing seminars, talks, symposia, etc. Students are allowed to participate and express their views in policy decisions through their delegated monitors.

Students participate in regular activities of NSS like blood donation camps, Swatch Bharat Programs; orphan home visits will inculcate social responsibility amongst the students. The Institution has committees on Grievance & Redressal for Students and Employees. Anti-Ragging Committee, Students' Disciplinary and Monitoring Committee, Anti Sexual Harassment Committee, and Internal Complain Committee have been constituted to ensure internal and external discipline to achieve a congenial academic atmosphere averting untoward activities, student's unrest.

The institution has developed a good platform for students to support and progression in the field of academic and co-curricular activities. The institution has an active alumni association that works as a bridge between the present and the past students. The college takes feedback from the alumni members to improve academics and also invites them to give seminars. GCEM College has produced a number of alumni who have been able to occupy a prominent position contributing towards the growth of the State of Karnataka in particular and the nation in general.

We still have a scope of improvement in the area of the Alumni Association's contribution and the formation of the student council.

## **Governance, Leadership and Management**

GCEM is a reflection of an efficient system in line with its vision and mission. The governance of the institution possesses a concatenation of values, education, research and innovation with a highly organized and transparent system in the various areas of operations.

The functioning of governance can be proved good by observing an increased rate of teachers attending professional development programs in the past five years. The institution follows an appreciable appraisal system for all staff members that are offered by an unbiased method of evaluation. The institute is promising to provide financial support to teachers to attend professional development programs from this academic year onwards and also has initiated planning policies in this academic year to receive funds and grants from nongovernmental bodies.

The governing council conducts meetings periodically to enquire, address and propose an action plan for the grievances addressed to the staff. To emphasis and enhance institutional growth a crew of committee is formed. These committees endlessly monitor and manage the system aimed at promoting measures for institutional growth.

Apart from holding ISO certification, the institution shows great interest in receiving accreditations. To support and enhance the professional growth and to improve the quality of the institution. we have initiated IQAC and other supporting cells from this academic year. The financial audit for both internal and external are conducted regularly and recorded. Follow-up action is also tracked.

Moving ahead we have planned to strengthen our functioning by stabilizing IQAC and in the area of receiving grants from other non-governmental bodies and making policy decisions in funding our teachers for professional development programs.

## **Institutional Values and Best Practices**

GCEM holds well in having an unbiased nature towards gender equity. Apart from imparting academic activities, the institution provides appropriate space for enhancing social values and responsibility. Equal opportunity is bestowed to students in leadership activities, the participation of students in the cultural fest and sports activities. The structure of GCEM provides a 24/7 security system, organized mentoring and counseling configuration. College being the second home for students, we provide them with feels good common rooms with proper ventilation, cots, and medical kits to help them in times of need.

The major contribution is made towards green initiatives by “Reduce, Reuse & Recycle”. Through the combined effort of students and faculty, we plant trees on campus, maximize the effort to plastic-free campus and conserve energy by using solar energy, switching to LED bulbs and maximizing usage of e-governance tools and rainwater. GCEM is supported by sound with waste management practices.

The resource availability for differently-abled is well constituted. Local community issues are regularly addressed through a few programs that promote the consciousness of students towards their society. The ample number of initiatives is made by GCEM to promote ethical and national spirit by conducting various programs.

The code of conduct for the different stack holders is followed and it functions adhering to the rules and regulations of the statutory bodies like the VTU, AICTE. A high level of transparency is maintained in all

levels of management.

Mentoring, Induction program for fresh college students, providing encouragement to students to stimulate the learning process are few of the best practices followed.

The distinctiveness of the institution by taking advantage of the management's industrial infrastructure in equipping the students and utilizes the benefits of strategically located in the industrial hub and the diverse culture practiced.

Running through the path records of five years, we have spotted to make the number of specific initiatives to address location advantages and disadvantages and take initiatives to engage with and contribute to the local community.

NAAC

## 2. PROFILE

### 2.1 BASIC INFORMATION

Name and Address of the College	
Name	GOPALAN COLLEGE OF ENGINEERING AND MANAGEMENT
Address	Sonnenahalli, Hoodi Village
City	Bangalore
State	Karnataka
Pin	560048
Website	<a href="http://www.gopalancolleges.com/gcem">www.gopalancolleges.com/gcem</a>

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	N.Sengottaiyan	080-42229748	9731059970	080-40903441	gcemprincipal@gopalancolleges.com
Associate Professor	T.Natarajan	080-40936034	9842760812	080-41228110	natgobi@gmail.com

Status of the Institution	
Institution Status	Private

Type of Institution	
By Gender	Co-education
By Shift	Regular Day

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details	
Date of establishment of the college	14-07-2010

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

State	University name	Document
Karnataka	Visvesvaraya Technological University	<a href="#">View Document</a>

**Details of UGC recognition**

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

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

Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	<a href="#">View Document</a>	30-04-2019	12	APPLIED FOR CLOSURE OF MBA PROGRAM

**Details of autonomy**

Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?	No
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**Recognitions**

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

<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	Sonnenahalli, Hoodi Village	Urban	7.17	19625.37

## 2.2 ACADEMIC INFORMATION

NAAC

<b>Details of Programmes Offered by the College (Give Data for Current Academic year)</b>						
<b>Programme Level</b>	<b>Name of Programme/Course</b>	<b>Duration in Months</b>	<b>Entry Qualification</b>	<b>Medium of Instruction</b>	<b>Sanctioned Strength</b>	<b>No.of Students Admitted</b>
UG	BE,Civil Engineering	48	PUC Science	English	60	11
UG	BE,Mechanical Engineering	48	PUC Science	English	60	9
UG	BE,Electronics And Communication Engineering	48	PUC Science	English	60	50
UG	BE,Computer Science And Engineering	48	PUC Science	English	60	53
UG	BE,Aeronautical Engineering	48	PUC Science	English	60	45
Doctoral (Ph.D)	PhD or DPhil,Civil Engineering	36	MTECH ME	English	2	1
Doctoral (Ph.D)	PhD or DPhil,Mechanical Engineering	36	MTECH ME	English	2	0
Doctoral (Ph.D)	PhD or DPhil,Electronics And Communication Engineering	36	MTECH ME	English	4	1
Doctoral (Ph.D)	PhD or DPhil,Computer Science And Engineering	36	MTECH ME	English	6	0

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

<b>Teaching Faculty</b>												
	<b>Professor</b>				<b>Associate Professor</b>				<b>Assistant Professor</b>			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	5				9				42			
Recruited	5	0	0	5	4	3	0	7	18	21	0	39
Yet to Recruit	0				2				3			
Sanctioned by the Management/Society or Other Authorized Bodies	5				9				40			
Recruited	5	0	0	5	4	3	0	7	18	21	0	39
Yet to Recruit	0				2				1			

<b>Non-Teaching Staff</b>				
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
Sanctioned by the UGC /University State Government				20
Recruited	12	2	0	14
Yet to Recruit				6
Sanctioned by the Management/Society or Other Authorized Bodies				18
Recruited	12	2	0	14
Yet to Recruit				4

<b>Technical Staff</b>				
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
Sanctioned by the UGC /University State Government				20
Recruited	15	5	0	20
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				20
Recruited	15	5	0	20
Yet to Recruit				0

**Qualification Details of the Teaching Staff**

<b>Permanent Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Male</b>	<b>Female</b>	<b>Others</b>	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	5	0	0	4	3	0	1	1	0	14
M.Phil.	0	0	0	0	0	0	1	3	0	4
PG	0	0	0	0	0	0	15	18	0	33

<b>Temporary Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

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

<b>Details of Visting/Guest Faculties</b>					
<b>Number of Visiting/Guest Faculty engaged with the college?</b>	<b>Male</b>		<b>Female</b>		<b>Total</b>
	2		0		2

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

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
Doctoral (Ph.D)	Male	2	0	0	0	2
	Female	0	0	0	0	0
	Others	0	0	0	0	0
UG	Male	63	26	0	0	89
	Female	67	12	0	0	79
	Others	0	0	0	0	0

**Provide the Following Details of Students admitted to the College During the last four Academic Years**

Programme		Year 1	Year 2	Year 3	Year 4
SC	Male	11	14	20	18
	Female	8	8	9	6
	Others	0	0	0	0
ST	Male	1	0	2	5
	Female	1	2	2	2
	Others	0	0	0	0
OBC	Male	42	63	68	68
	Female	47	38	33	33
	Others	0	0	0	0
General	Male	29	28	49	58
	Female	17	17	36	25
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		156	170	219	215

### 3. Extended Profile

#### 3.1 Program

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

Response: 247

File Description	Document
Institutional Data in Prescribed Format	<a href="#">View Document</a>

Number of programs offered year-wise for last five years

2018-19	2017-18	2016-17	2015-16	2014-15
4	4	4	4	4

#### 3.2 Students

Number of students year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
643	702	690	614	624

File Description	Document
Institutional Data in Prescribed Format	<a href="#">View Document</a>

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

2018-19	2017-18	2016-17	2015-16	2014-15
63	63	64	66	65

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

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

2018-19	2017-18	2016-17	2015-16	2014-15
148	163	154	123	123

File Description	Document
Institutional Data in Prescribed Format	<a href="#">View Document</a>

### 3.3 Teachers

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

2018-19	2017-18	2016-17	2015-16	2014-15
57	50	48	48	49

  

File Description	Document
Institutional Data in Prescribed Format	<a href="#">View Document</a>

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

2018-19	2017-18	2016-17	2015-16	2014-15
57	50	48	48	49

  

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

### 3.4 Institution

#### Total number of classrooms and seminar halls

**Response: 26**

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

2018-19	2017-18	2016-17	2015-16	2014-15
170	244	288	214	181

#### Number of computers

**Response: 216**

## 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:

All the programs offered in our college are affiliated to Visvesvaraya Technological University (VTU), all departments are required to implement the syllabus prescribed by the VTU. A common *academic calendar* is geared up before the commencement of every semester keeping the VTU academic calendar as the pedestal. It is detailed enough to cover the available timeframe, yet flexible enough to permit changes department wise based on the activities planned.

To emphasis on professional methodology to balance academic and other activities like the *practical, tutorial, library, mentoring and placement training*, a team of faculty members headed under the supervision of Principal is formed as *timetable* coordinators. These faculty members draw up a detailed timetable that deploys the units of time-based on credit and hours allocated by VTU to engage a student to participate in the expected activity. A set of teaching plans based on an organized *course plan* consisting of detailed allotment of the course topics with the *mode of content delivery*, its objectives and learning outcomes prepared by all the faculties.

The departments strive for effective curriculum delivery through a combination of *internal assessments, assignments, seminars, quizzes*, etc and *innovative methods of teaching* in theory and lab courses: verbal assessment in everyday class to understand the nature of the student's aptitude and expectations relating to the course. Faculty members take the utmost care to complete the syllabus in time which is also *monitored* by the Principal through syllabus completion collected for every course by every weekend. The deviations if any are discussed in HoDs meeting well-thought-out every week.

Internal assessment question papers include *Bloom's taxonomy* (CO and RBT level) which are verified by the coordinator of each program and are scrutinized by the department head. Tutorials/projects, class tests and internal assessments comprise the formal evaluative processes which are transparent and *scrutinized* by HoDs and senior professors.

Students are encouraged to meet faculty beyond classroom hours for clarification of doubts at any time. Extra hours are allocated to take *remedial classes* after completion of internal examinations to reinforce students' preparedness before the university examinations.

To intensify students' learning experience, the college provides *special lectures* delivered by eminent professors and industrialists on advanced topics related to the curriculum, audio-visual and other *ICT facilities* that are extensively used by teachers in day to day teaching to make delivery of the curriculum attractive to students.

The whole human society is the laboratory in which students can observe, analyze and gain insight into various intricate aspects of their syllabus, much attention is paid to experiential learning through *industrial*

*visits, workshops, seminars, internships, value-added courses*, etc. Progress of delivery of the curriculum is regularly monitored and necessary course corrections are initiated through many mediums like a periodic *parent-teacher meeting, collecting feedback* from the students.

To systemize the curriculum workouts, *academic auditing* is done twice a semester by the Academic Auditing Committee and the report is prepared for assessment of academic activities to ensure the effectiveness of curriculum delivery in all the programs.

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

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

Response: 0

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

2018-19	2017-18	2016-17	2015-16	2014-15
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: 0

#### 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

2018-19	2017-18	2016-17	2015-16	2014-15
00	0	0	0	0

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:** 24.29

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

Response: 60

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

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

**Response:** 100

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

Response: 4

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

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

**Response:** 0

#### 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

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0

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

## 1.3 Curriculum Enrichment

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

#### Response:

The cross-cutting issues like Gender, Environmental sustainability, Human Values, and Professional Ethics, etc., find an ample space when it comes to applying them positively into the curriculum. We believe in maintaining a *healthy environment* for all its students. The curriculum is designed by the *university* itself does include many of these aspects such as the *courses* mentioned below.

1. Environmental Studies
2. Constitution Of India, Professional Ethics & Human Rights
3. Air Pollution and Control
4. Sustainability Concepts in Engineering
5. Occupational Health and Safety
6. Solid Waste Management
7. Environmental Protection and Management
8. Municipal and Industrial Waste Water Engineering
9. Essentials Of NCC

There are various committees which take care of the students such as:

#### Women Grievances Committee:

It is formed only by female faculty members consisting of one coordinator and two members and also one student representative from each department. We are proud to state that in our college the incidents of sexual harassment of women students are nil due to the discipline in the campus. Yet this cell *interacts with women students* at regular intervals to identify any sort of issues existing. The women's cell is capable of dealing with the cases very confidently with its team.

#### Anti- Ragging Committee:

As per the guidelines of UGC, AICTE and the University, an Anti- Ragging Committee has been constituted to handle the issues pertaining to ragging. The names of the committee members along with their mobile numbers are *displayed at different places* in the institution. Any student can lodge a complaint without disclosing his/her identity in case of any in the convenient incident.

#### Discipline Committee:

This committee formed by a group of faculty members from each department. This committee plays a vibrant role in the *maintenance of discipline* of the complete campus. In day to day functioning of the college as well as any special occasion or any programs, this committee's presence and control are mandatory.

#### Human Rights:

The college conducts various programs on Human Rights to provide awareness among students such as Voter's Day Programme, Blood Donation Programmes, *Swachh Bharath*, Health Awareness Programmes, Tree Plantation, etc.

File Description	Document
Any 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:** 8

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

Response: 8

File Description	Document
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:** 26.59

1.3.3.1 Number of students undertaking field projects or internships

Response: 171

File Description	Document
List of students enrolled	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Any additional information	<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:** 4.59

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

2018-19	2017-18	2016-17	2015-16	2014-15
52	47	26	21	6

#### 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:** 73.5

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

2018-19	2017-18	2016-17	2015-16	2014-15
149	158	193	193	189

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

2018-19	2017-18	2016-17	2015-16	2014-15
240	240	240	240	240

#### 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:** 94.42

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

2018-19	2017-18	2016-17	2015-16	2014-15
61	62	62	66	52

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 organizes an *orientation program* in the month of August for the 1st year students at the commencement of a new batch every year. Also as per VTU/AICTE norms, the college organizes an *induction program* with a duration of 21 days (11 days odd semester and 10 days even semester) for first-year B.E. students every year before the commencement of classes. The orientation program would **help students to get familiarized with the institution**, curricular and co-curricular activities, facilities, rules and regulations of VTU, interaction with HODs/faculty members, industrial visits, and library and lab details of each branch. In the induction program, students are given personality development programs like yoga, meditation, communication skills, aptitude skills, time management, and motivational talks.

Based on the performance of PU marks, the students are categorized for mentoring sessions and special classes. Additional mathematics classes arranged for *diploma students* who are joining directly the second year. *Workshops and guest lectures* are organized for students in order to encourage knowledge and to do projects in technologies. For some of the complicated subjects, guest lecturers for both advanced and slow learners are arranged to gain good subject knowledge to students and also for good results.

**Advanced learners:**

Good performing students are identified on the basis of VTU results, IA marks. In the first year, high performing students are identified based on PU marks and CET rank.

- Students are encouraged to be members of professional bodies like IETE, CSI, IEEE, etc.,
- Top rank students are encouraged to attend the technical fest, workshops, and seminars conducting in other colleges/universities.
- Additional problems/questions are given to high-performance students to get university ranks.
- Placement training (aptitude and technical) to get a job in good companies.
- Encouraging them to write competitive exams like GATE, GRE, IELTS, etc.,

- Encouraging final year students to present their project work in state-level/national level

competitions.

- Internship and project assistance in reputed companies.
- Additional two library books providing to the top 3 students in each class.

### Slow learners:

The slow learners are classified based on the IA and VTU exam performance.

- The mentor of each student monitor academic performance (results, attendance) and interact frequently to understand and assist to slow learners.
- The mentors and course coordinators will update student IA marks and attendance to parents regularly through Pupilpod S/W.
- Additional classes conducting for slow learners either in college timings or after college timings in order to get good results.
- College conducting PTM every semester twice to interact with slow learner's parents.
- Department conducting remedial classes those who failed in previous semester subjects
- Extra timing spending to clarify their doubts.
- Class Committee Meeting (CCM) is conducting after each IA and take suggestions/feedback from them and based on that further action-taking.
- Module wise important questions providing to the slow learners for getting pass marks in university exams.
- Additional lab sessions conducting in order to understand concepts/programs clearly.

### 2.2.2 Student - Full time teacher ratio

**Response:** 11.28

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

**Response:** 0.16

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

**Response:** 1

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:**

Student-centric learning is provided in the *practical sessions*. GCEM has deployed several practices for the active participation of students in the Teaching-Learning Process. Lab sessions that comprised both software and hardware, assist in experimental learning and permit the students to enhance their knowledge and skills. It motivates students to do new research in the current technologies. *Multimedia teaching* like PPTs is incorporated in the day-to-day teaching-learning process that enhances the students' understanding of the subject. Lectures, seminars, and workshops by subject & industry experts are organized by the respective departments, to provide knowledge beyond the prescribed syllabus.

**Course Delivery Methods:**

- Lectures notes
- Online access Lectures notes
- PPTs
- Tutorials/Quiz/MCQ/class test/
- Remedial classes
- Lab experiments
- Assignments
- eLearning
- NPTEL video (GCEM has local chapter)
- EDUSAT
- IIT Bombay – spoken tutorial project (MOOCs), etc.,

Students are encouraged to organize and to participate *in Inter-collegiate events* like science exhibitions, project exhibitions, etc., which brings out the potential of the students. *Industrial visits and value-added courses* are arranged to give hands-on experience to the students. In addition to academics, our college encourages the students to participate in *NSS and other social activities* like blood donation, etc. Students are doing the internship as per the curriculum to build a relationship with industry/organization.

Two days '**TechFest**' is conducting every year for students to explore their knowledge and skills technically, also sharing knowledge with other college students. Aptitude and Programming Training by external experts are done at regular intervals which helps for placement drives and other competitive examinations like GATE, GRE, etc.,

**2.3.2 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc.****Response:** 94.74**2.3.2.1 Number of teachers using ICT****Response:** 54

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:** 18.37

#### 2.3.3.1 Number of mentors

Response: 35

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

### 2.3.4 Innovation and creativity in teaching-learning

**Response:**

**Teaching-Learning** is an observable fact where the teacher and the student are learning. The purpose of education is not just making a student literate but to add rationale thinking, knowledgeability, and social responsibility. In engineering courses, the *latest technologies* and practice requirements require curriculum innovation and creativity in the teaching-learning process.

Innovation and creativity in engineering courses ensure that degree programs attract students and transform them into graduates who are well prepared for future engineering practice. **Software and hardware experiments** remain significance to demonstrate theoretical concepts and will help do research on the latest technologies. The **internet-accessible laboratory experiments** are now available that allow students to do the required experiment when they want to.

In curriculum innovation comprises increasing use of problems and **project-based learning** etc., Industrial visits, conducting technical tech fests, internships will help students for innovative thinking and learning process. The innovative teaching methods like **PPT, Audio & Video tools, Animated presentation, case studies, assignments, Puzzles, debugging**, etc., that makes the classroom more interesting for students as well as the teacher.

The **research activities** by faculty members useful for creative and innovative thinking of each concept for demonstrating to the students in the classroom and in the laboratory. And also faculty can assist the student to do paper presentations and journal publications.

The following innovative teaching methods are also practiced for enhancing the learning experience of the students.

- Real-world examples
- Physical Models
- Prototype Models
- Minor projects
- Code competition

During this semester (ODD 2019-20), we have introduced a new method of teaching called '**Lab Tube**' in computer-oriented laboratory course 'AutoCAD' for civil engineering as an experimental basis. In this method, a dedicated computer with screen capturing software is given to faculty who teach 'AutoCAD' software in the laboratory. He explains the complete procedure of the experiment with mic attached headphone on the computer. The complete explanation is captured as a video file with the help of screen capturing software (for the duration of 15 to 30 minutes).

This pre-recorded video is stored in the laboratory server/each computer as a reference video for the students. During the laboratory class, the students are asked to listen to the video lecture through earphones and computer screens during their practicing time.

After the application of this method in 'AutoCAD', we observed the following.

- Ensures the individual learning of software
- Facilitate as a supporting teacher for all the students
- Enhanced the learning rate significantly
- Students can reuse the same video file for their continuous learning

We are planning to implement this innovative '**Lab Tube**' method for the other computer-oriented laboratory courses (Ansys, Solidworks) offered in the upcoming even semester for ensuring the enhanced learning of computer packages.

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

## 2.4 Teacher Profile and Quality

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

**Response:** 100

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years	<a href="#">View Document</a>
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:** 9.92**2.4.2.1 Number of full time teachers with Ph.D. year-wise during the last five years**

2018-19	2017-18	2016-17	2015-16	2014-15
12	6	2	3	3

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:** 10.38**2.4.3.1 Total experience of full-time teachers**

Response: 591.5

**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:** 3.97**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**

2018-19	2017-18	2016-17	2015-16	2014-15
0	1	0	0	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:** 44.92

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

2018-19	2017-18	2016-17	2015-16	2014-15
30	24	17	19	24

#### File Description

#### Document

List of full time teachers from other state and state from which qualifying degree was obtained

[View Document](#)

## 2.5 Evaluation Process and Reforms

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

#### Response:

The evaluation process strictly adheres to VTU guidelines. Three internal assessments are conducted every semester with prior notification to students and faculty through the college academic calendar which is prepared based on the VTU academic calendar.

A fortnight before, time table of internal assessments is displayed on all the notice boards. Roles of invigilators, squad and time of invigilation are also circulated to the faculty members. Questions adhere to VTU standard and follow Bloom's Taxonomy and Outcome-based Education in which CO's are attained. Out of 5 CO's minimum of 2 CO's are covered in each internal assessment (Implemented for Regulation 2018).

The CIE related activities are as follows.

- Giving equal weight age to all topics, question banks are prepared by subject handling faculty and monitored by HOD
- After approval from the Principal, photocopy of question papers are taken by the Internal exam coordinator and they ensure smooth conduction of test
- Faculty prepares the answer key / Scheme of evaluation and it is documented with a copy of sample question paper for future reference
- The marks are entered in softcopy as well as in hard copy, which is handed over to Principal after an analysis
- After every internal exam, HOD Check is performed to ensure that valuation is done according to the scheme prepared
- The 10 scheme/Parallel batch has external marks as 100 and internal marks as 25 marks, which is the average of best two internals
- 17 scheme under the University CBCS System. The syllabi are unitized according to the semester system of teaching. Here 30 marks for internals and 10 marks for assignments/class tests/seminars,

in total 40 marks for internals and 60 marks for externals

- Internal assessment tests and other measures taken to judge the performance of students is done fairly and in an effective manner
- Students are allowed to go through the valued answer scripts of internal assessment tests and doubts regarding evaluation are cleared
- Internal Test performance is intimated to the parents in 2 days and Parent Teachers Meeting is conducted within a week to discuss the performance of their ward
- Students are encouraged to improve their performance in the future by counseling.
- As mentors and advisors of the students, nearly 18 to 20 students are entrusted to each faculty member.
- The mentors sort out the personal issues, academic and non-academic problems of their mentees and provide counseling and guidance

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

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

#### Response:

At the beginning of the first year of their academic program, the rules and regulations for the evaluation process are communicated to students through syllabus copies. Schedule for end semester examinations will be communicated during the semester as and when the schedule is released by the University. The internal assessment evaluation process is communicated to students by the respective faculty. General instructions regarding the evaluation methods of University answer scripts are given to students. Students are updated promptly with periodic instructions issued by the university through circulars and notice board display. A vivid awareness among students regarding the evaluation processes is communicated through tutors and circulars. Syllabus for internal assessment will be communicated to students well in advance.

Question papers are prepared based on Course outcomes and are approved by heads of the department. Scheme and Solution are prepared by the faculty on completion of the assessment. The evaluation of blue books is based on schemes and solutions by the faculty. The blue books are given to students after the completion of the evaluation for verification of the marks.

**Theory subjects are assessed through** Three internal tests University external test Assignments, Seminars, Quiz.

**Practical subjects are assessed through** Internal tests, University external lab exams, Mini projects, etc.

#### Projects work assessment:

The project work starts at the end of the seventh semester. Senior faculty members, HOD and Project Coordinators select one project for each group considering the quality, relevance, University norms. Projects are selected in line with Department mission, vision, PEO, PO, and PSOs. Students submit

3-5 project abstracts to the department project coordinator along with their project group members and area of interest. The list of previous year projects is displayed in the notice board which ensures no repetition of project work and also encourages students to enhance the previous works. Faculty members encourage students to do in house projects. They will be provided with the necessary hardware and software support.

**The project assessment is done through** Four Internal project reviews and Final external university project reviews. We also display their projects in the Department Project exhibition. Students are also motivated to present their project ideas in conferences and also publish papers in Journals.

**Seminar Assessment:** In the final year students have a seminar in their curriculum. The students have to select a recent and innovative topic and present in front of the seminar coordinator, department faculty and their class students.

**The seminar presentation is assessed based on** Topic selection, Presentation and Report preparation.

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

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

#### Response:

- The college follows strictly the guidelines and rules issued by the affiliating university while conducting internals and semester-end examinations.
- Three internal assessment tests are given during each semester.
- Time table for which is prepared well in advance and communicated to the students earlier.
- Seating plan and table marking are followed even for internal assessment tests and it is displayed on the notice board along with the internal assessment time table.
- After evaluation of internal assessment answer scripts, the scripts are given to students to have an idea of their performance in the test.
- If they come across any doubts, clarification is given which enables them to fare better in the future. By adopting the criteria as per the direction of affiliating university, complete transparency is maintained in internal assessment tests.
- Students and faculty members are made aware of the transparency to be maintained in the system of assessment. This further enhances the transparency and rapport between faculty members and students.
- After preparing the assessments to report it is shown to the students, if any grievances are there it can be resolved immediately and submitted by the concerned faculty to the department, the copy of the same is uploaded in the VTU at the end of the semester.
- A department wise exam cell system is followed. The head of the exam cell is HOD of the respective department.
- The university exam-related queries can be solved by the college exam section.
- Any grievances related to university question paper like out of syllabus, repeated questions, the improper split of marks, marks missed, wrong question number during semester exams are

addressed to the VTU exam Coordinator and Principal.

- After making an analysis of day by day university question papers by the subject handling faculties with Department Head in turn he precedes the same to the university immediately.
- Review on the question papers are made by faculties to find out the percentage of toughness in the question paper and the feedback is given to the Principal.
- University decision or information after resolving the grievances is intimated immediately to the concerned departments, once it is obtained through the Principal.
- It is also conveyed to the students through class coordinators and subject handling faculties.
- If the student has any grievances related to the evaluation of university answer scripts are intimated to the subject handling faculty and head of the department if necessary.
- The revaluation is applied for answer scripts, in which the re-evaluated marks can be obtained during the announcement of revaluation results of the same semester. In order to maintain transparency, students can apply for photocopy of their answer script and they may decide on re-valuation/re-totaling.
- Consulting with the subject handling faculty and Department HOD challenge revaluation can also be applied by the students as the last re-evaluation approval.

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

##### **Response:**

The university releases the calendar of events for the affiliated colleges at beginning Academic calendar includes:

- Start and end dates of the semester as per VTU norms.
- Examination schedules

With reference to this, the college academic calendar is prepared by the HODs and Vice-Principal headed by the Principal. It is provided to all the teachers and students at the beginning of the academic year. College academic calendar includes

- Dates of re-opening
- Bridge course
- Orientation course
- Commencement of internal tests
- Commencement of semester examinations
- Important functions of the college
- Government and local and institutional holidays etc

##### **The academic calendar is designed as follows:**

- Striking features of the academic calendar are highlight teaching days, events planned for the semester, State Govt. and local holidays
- The teaching plan is prepared by the individual department under the guidance of the concerned

staff council

- The Action Plan for academic-oriented activities like seminars/workshops/conferences to be organized, subject experts to be invited for Guest lectures
- Cultural program for various activities, schedule of project reviews are decided in the respective departments/committees/clubs, etc., presented in the Planning and Evaluation Committee meeting and submitted to the Principal before the commencement of the academic year
- The evaluation of the action plan is reviewed by the Planning and Evaluation Committee at the end of the academic year
- Internal Assessment tests are conducted strictly as per the guidelines of VTU and as per the academic calendar
- After conducting each internal exam the evaluation should be completed within three working days
- Students are evaluated continuously based on three internal exams and made them ready for University exams

File Description	Document
Any 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:

In our institute, In the first class of each semester, the faculty member of concern subject used to explain/discuss to students about course objectives, course outcomes (COs), program outcomes (POs) and PSO, which yields an overview of the subject/course to students. The OBE coordinator used to explain all before the commencement of classes of each semester to teachers.

The Program Outcomes, program-specific outcomes and course outcomes of all the courses offered respective departments are displayed on the college website and efforts are made to attain the maximum COs to the maximum extent with the VTU syllabus.

All the faculty members maintain a course file that comprises the lesson plan and course material of the concerned course. Also, the mission and vision of each department communicated to students through the website and in classroom discussion. The faculty setting the Internal Assessment question paper based on COs and RBT levels for evaluating the attainment level of COs.

File Description	Document
COs for all courses (exemplars from Glossary)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

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

#### Response:

The process of course outcome assessment is based on the internal assessment (IA) examination, semester-end examination, Assignments, seminar, and quiz. Each question in IA is tagged to the corresponding CO and RBT levels. In the Outcome-Based Education (OBE), assessment is done through one or more than one process, carried out by the institution, that identifies, collects, and prepares data to evaluate the achievement of course outcomes (CO's).

Assessment tools are categorized into two methods to assess the course outcomes as *Direct assessment* can be done with the 'academic performance' and *indirect assessment* can be done with 'course end survey'.

#### List of direct assessment tools:

- Three Internal assessment (IAs) as per VTU
- Assignment
- Quiz
- Seminar
- Internship training
- Project work for final year students
- Mini project work
- Seminar for final year students
- VTU end semester exam etc.,

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

### 2.6.3 Average pass percentage of Students

**Response:** 93.24

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

Response: 276

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

Response: 296

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

## **2.7 Student Satisfaction Survey**

### **2.7.1 Online student satisfaction survey regarding teaching learning process**

**Response:** 3.54

NAAC

## 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

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

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0

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

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

**Response:** 17.54

3.1.2.1 Number of teachers recognised as research guides

Response: 10

File Description	Document
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

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

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

Response: 246

### 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 buzzword across the globe for the 21st century is 'Innovation'. Keeping this in mind to in the run of a decade and with reference to new progression of MHRD, to establish MHRD's Innovation Cell (MIC)' that mandate to encourage, inspire and nurture young students by supporting them to work with new ideas and transform them into prototypes while they are informative years to systematically foster the culture of Innovation amongst all Higher Education Institutions (HEIs).

**Institution's Innovation Council (IIC)** was well set when **GCEM received its approval from AICTE to establish IIC on its campus in September 2019. Gopalan Research Innovation and Training Centre (GRIT)** an interdisciplinary research center for undergraduate students and other research activists. It is reputable not only to promote innovation and research activities of young learners but also aspire them to engage in research activities.

GRIT extends its support to them through modern labs and advanced tools with accomplished researchers and academicians. GRIT provides training on the recent advancements in the different disciplines of engineering for young school and college students. The young faculties who would be pursuing their doctoral degree will also be availing some of these facilities and mentor the students in the center.

Few key experimental facilities like special-purpose Energy and Environment lab, Experimental Aero Lab, Design and Computation Lab, Fabrication and Testing, Sensors Lab, Virtual Instrumentation Labial are planned to be set up for enhancing students with close coordination to take up interdisciplinary research apart from specializing in their own domain. Short term and long term workshops and training for undergraduate and pre-engineering students, project work and Research training for UG students and the funded research program for doctoral candidates are also in forecast processes.

GRIT collaborates with industries and National Research Labs to impart skill-based training in different areas. As a part of the development schedule, MOUs with a few Industries is signed for collaborative research and training.

- **M/s. Barolla Innovation Technologies – Robotics for health care and Agriculture**
- **M/s Captronics System - Virtual Instrumentation for Aerospace.**

GRIT will closely work with industries under MOU to address R&D projects of mutual interest by inviting them to deliver exceptional lectures on current development. Through periodic seminars/training and workshops there will be a knowledge transfer for the same. GRIT also proposes to train the faculties and students from rural areas through the outreach program. Few upcoming programs of GRIT are:

1. Bringing private industry to campus to support the innovations of the students towards process or product development.
2. Establishing an industry interface cell as a part of IIC.
3. Arranging special lectures on IPRs, Digital marketing, entrepreneur skill, etc.
4. Annual competitions and awards to promote new innovations.
5. Visits to National Labs and Industry for better exposure.

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

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

**Response:** 20

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

2018-19	2017-18	2016-17	2015-16	2014-15
5	8	4	3	0

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:** Yes

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

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

**Response:** No

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

**Response:** 0.3

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

**Response:** 3

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

Response: 10

File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	<a href="#">View Document</a>
Any additional information	<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: 0.46

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

2018-19	2017-18	2016-17	2015-16	2014-15
6	5	2	6	4

File Description	Document
List of research papers by title, author, department, name and year of publication	<a href="#">View Document</a>
Any additional information	<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: 0.36

## 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

2018-19	2017-18	2016-17	2015-16	2014-15
5	9	1	2	1

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

GCEM has made its noteworthy contribution to the society and environment by making participation to promote College-Neighborhood-Community network. Major emphasis is given on student engagement, service orientation and holistic development of students contributing to good citizenship. NSS unit and a team of committed faculty members engage students in the community development programs.

**Blood donation camp:** It is organized every year in collaboration with Rastrothana Blood bank Bangalore. We have conducted the camp on the following dates: 11th March 2014, 9th March 2015, 11th March 2017, 9th March 2018 and 9th April 2019. Nearly 885 students have participated in the activity. The main objectives of the Blood Donation camp are to create awareness among the faculty, students and supporting staff members about the other's life by giving the blood when they are suffering from life and death situations.

**Slow Down And Save Lives:** On December 12th, 2017 in collaboration with the Indian Red Cross Society/ Traffic Police Warden an awareness program was conducted. The total participants are around 201 including 31 faculty members. This aims to create awareness among the faculties, students and supporting staff members about road safety with maintaining traffic rules and regulations to avoid the accident.

**Eye Camp:** Free Eye check program for poor peoples and faculty members was conducted on 26th April 2018, in collaboration with the Indian Red Cross Society/Lions charitable trust. 150 participants including 25 faculty members participated in the camp. This specifically aims to create awareness among the peoples, faculties, students and supporting staff members about the importance of eyes (human organs). After completion of the eye check-up, the Lions Club has distributed the tested specs for 125 people nearby the college surrounding.

**Eat Right India Movement:** To create awareness in eating habits among people Food Habits for healthy living a program was conducted in collaboration with Indian Red Cross Society/ Lions charitable trust on 11/3/2018. The total participants are around 190 including 30 faculty members. This aims to create awareness among the faculties, students and supporting staff members about Food Habits for healthy living.

**Swatch Bharath Abhityana:** To create awareness on the harmful effects of waste garbage on the environment, with an aims to make the institution surrounding area clean and nearby area as garbage free (Cleanliness). These events started by GCEM principal along with 8 faculty members and 50 students have

cleaned the surrounding area on 24th September 2014.

**Anti Tobacco day:** It was celebrated by the NSS unit of GCEM College on 31st May 2015 in which 20 students participated to promote awareness on the hazards faced by people by using tobacco and its post effect on society.

These activities among students make a positive impact on health awareness and personal hygiene. Involvement in these extensions and outreach activities, the students develop critical thinking skills and time management. Working outside the college campus and with diversified social groups of peoples allows students to gain more self-confidence, autonomy, and appreciation for others.

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

**Response:** 0

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

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0

#### File Description

#### Document

Number of awards for extension activities in last 5 years

[View Document](#)

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

**Response:** 9

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

2018-19	2017-18	2016-17	2015-16	2014-15
6	1	0	0	2

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:** 11.36

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

2018-19	2017-18	2016-17	2015-16	2014-15
154	50	100	0	70

File Description	Document
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:** 7

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

2018-19	2017-18	2016-17	2015-16	2014-15
5	1	1	0	0

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: 0**

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)

2018-19	2017-18	2016-17	2015-16	2014-15
00	0	0	0	0

File Description	Document
Details of functional MoUs with institutions of national, international importance, other universities etc during the last five years	<a href="#">View Document</a>

## Criterion 4 - Infrastructure and Learning Resources

### 4.1 Physical Facilities

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

#### Response:

The Gopalan College of Engineering and Management, Whitefield, Bangalore (GCEM) was established in the year 2010 and affiliated to VTU, Belagavi. GCEM is an institute which provides quality education in a diverse and multi-cultural environment. GCEM has state-of-the-art infrastructure, creating an environment for progressive learning and development.

#### Class Rooms

The sufficient number of classrooms is designed and maintained as per norms. Each classroom has an LCD projector with desktop and speakers. For each faculty room, 5 desktops are provided for making use of the ICT facility. GCEM has 4 seminar halls, one amphitheater, and one open amphitheater. The Wi-Fi facility is available on all floors. The reading room/project room is provided with LAN ports for the students to make use of e-resources.

#### Laboratory

Each laboratory is designed and maintained as per norms with respect to carpet area, ventilation, equipment, etc. All laboratories are updated with the latest equipment as per the curriculum and facility to learn beyond the syllabus. Each lab is handled by two faculties with one lab instructor. The computer laboratory is maintained by the IT department. Sufficient numbers of terminals are available for students. Computer labs are equipped with sufficient hardware and software as per the curriculum.

#### Computing

There are 216 computers for students, available in various department computer laboratories and 10 computers in the library exclusively for using e-resources. 5 computers for HODs and faculties with printer and scanner facilities are provided for each department. Around 27 computers are being used in the administrative office. Two UPS with 10 KVA is made available for the staff and students. Two generators with 285 KVA power supply is available as back up.

Type of facility	Area/size	Number of rooms	Year of establishment
Class Rooms	65 – 84 sq. m	31	2013
Tutorial	34 – 36 sq. m	6	2013
Discussion	32 sq. m	5	2013
Drawing Hall	177.71 sq. m	1	2013
Seminar Hall	135 – 185 sq. m	4	2013
Laboratory	100 – 225 sq. m	32	2010
Workshop	168 sq. m	1	2010

Computer Centre	150 sq. m	1	2013
Library	361 sq. m	1	2010
Amphitheatre	1000 sq. m	1	2010
Smart Classroom	60 - 70 sq. m	3	2013

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

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

##### Response:

Student life includes participation in sports, recreational and co-curricular activities and cultural. GCEM has optimally used the excellent sports facilities (both indoor and outdoor) available on the campus for their students to showcase their talent.

##### Availability of sports facility

GCEM encourages students to participate in the inter-collegiate, University, and state-level competitions. Sports co-ordinator is available to full time to help students to get involved in various sports and games. GCEM has enthusiastic and sportive Volleyball, Football, Kabaddi, and Cricket teams. A football and cricket ground, three tennis courts are effectively used by the GCEM students.

##### Cultural Activities

GCEM has one indoor hall (250 Nos.), one open amphitheater (500 Nos) and one indoor amphitheater (300 Nos) for conducting various cultural activities. 'Estralis' is the cultural fest organized by GCEM for their own students and also encourages other college students in and around Bangalore. 'Estralis' is a two-day cultural fest that provides a fabulous opportunity for the students to exhibit their talent with uniqueness. In the cultural fest, various events and games are conducted as per the interest of students. All the necessary facilities to conduct the cultural events in the college are made available to the students. Some of the cultural events are Computer Gaming, Battle of the Bands, Solo Singing, Mad Ads, Face Painting, Juke Box, Pencil Sketching, Cooking without Fire and many more. Some of the major attractions of 'Estralis' are Air Crash, Stunt Show, Treasure Hunt, Dance, and Fashion competitions.

##### Yoga and Meditation

Yoga is having stress-relieving powers on students, paving the way for improved academic performance with the practice of asanas, meditation and breathing exercises. Yoga helps to improve memory function, a direct benefit of which would be a better academic performance. Breathing is fundamental to life.

GCEM has ample space for doing yoga in both indoor and outdoor of the campus. Yoga and meditation are a part of the VTU induction program for first-year students. Daily two hours of yoga (**Suryanamaskar, Vajrasana, etc**) and pranayama are practiced during the session.

International Day of Yoga is observed on 21st June every year to spread awareness about the importance and effects of yoga on the health of the people. GCEM celebrates international yoga since 2016 to spread awareness among students and staff. Yoga teacher guide the participant about the poses and benefits of doing yoga asanas and pranayama exercises. Many students and staff's participated actively every year and spread the importance of yoga on health to their family and friends.

Sky foundation course for about a week was conducted in two batches GCEM faculty. Yogic practices include exercises (hand, leg, breathing, relaxation), Agna meditation, Shanti meditation, and Thuria meditation. Kayakalpa yoga is a part of the sky foundation course.

We organized two days of junior level national gymnastics competitions in our open amphitheater of GCEM in June 2019.

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:** 100

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

Response: 26

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:** 3.73

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

2018-19	2017-18	2016-17	2015-16	2014-15
9.07	20.28	2.65	3.52	4.38

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 Automation

The library is fully automated since 2012 and **Libsoft (version 9.8.0 web version using ASP.Net)** is the software used for Circulation, Procurement, OPAC and Project Reports. All the library documents are bar-coded and books are issued to users by reading the barcode of the document. Since the Library is fully automated, the holdings of the Library could be searched using OPAC. The holdings include the books and Journals, question papers and Project reports.

Edumerge V2 is being used from 2019 for all the above-mentioned purpose and it has some add on features as edumerge users can search for the book and reserve from their workstation. Edumerge helps students to check the availability of the books from their place and reserve it immediately. If any edumerge users want to view and cancel their reservation, it can be done.

The library is a member of the DELNET for the last 5 years. It is being extensively used for ILL and searching the database of other member libraries. The Library has 10 desktops with internet facility through which the e-resources could be accessed.

A register is maintained in order to know the number of users makes use of the library. The library is a member of the VTU E-Resources Consortia. The users of the Library can access publications of all major publishers like Elsevier, Springer Nature, Taylor & Francis, Institution of Civil Engineers (ICE), Emerald, McGraw Hill Education, New Age International, Packt, Knimbus, Turnitin, NetAnalytik. The users can access around 21113E-books and 7401 journals.

The library conducts library stock verification at the end of every year with the help of the consent department and identifies the books to be weeded out because of physical damage. New books are added in sufficient numbers as and when syllabus changes and also to replace the weeded out /damaged books.

The library has a separate notice board for display of new arrivals. Circulars are also sent through the library about the new book's arrival and the opening/closing of the library for every semester. Students can borrow 3 books which can be renewed in 15 days.

The library has also made provision for students to refer old question papers for preparing their examination. Library also maintains Project reports submitted by the students as part of their course curriculum.

## Library Facilities & Services

### Reprography and Scanners facility.

Reprography and scanner facility is available in the library for both students and staff. The departmental books are arranged subject-wise and an index is pasted on each rack the readers to easily locate the books and other reading material even without the help of Library staff. There is a regular stock verification process carried out by the library. The latest stock verification was done in the month of July 2019. A file is maintained which contains the stock verification reports carried out at different intervals. The files relevant to Library and Library services are well maintained and labeled for easy access to any of the Library staff.

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

#### Response:

The library is a source of knowledge beyond the syllabus, enriches with general books, special books, epics, etc. GATE, competitive exam books, Quantitative aptitude, Verbal skills, Communication Skills are in the reference section for students to make them utilize the resource for higher education and develop soft skills. The library has an e-resources facility through which students can access e-books and e-journals.

Printed Books: Titles: 3216

Volumes: 12513

Book Bank: 247

NewsPaper: 5

List of Rare Books, Manuscripts, Special Reports or any other Knowledge Resources

Sl.No.	Name of the book/Manuscript	Name of the publisher	Name of the author	Number copies
1	7 Habits of Highly effective people	Simon & Schuster	Stephen R .Covey	1
2	Ambedkar Speaks Vol I	Konark	Jadhav,Narendra	1
3	Ambedkar Speaks Vol II	Konark	Jadhav,Narendra	1
4	Ambedkar Speaks Vol III	Konark	Jadhav,Narendra	1
5	An Introduction to The Constitution of India	Lexis Pub	Durga Das Basu, Dr	9
6	An Introduction to the Constitution of India	Vikas Pub	Pylee M.V	9
7	Brain Teasers	Jaico Publication	Ravi Narula	1
8	Chaitanya Charitamrita (in	9Baktivedanta	Book	9

	Volumes)	Trust(ISKCON)		
9	Communication Skills	Oxford University Press	Sanjay Kumar	15
10	Effective Technical Communication	Mcgraw Hill	Rizvi M Ashraf	8
11	Emotional Intelligence at work	Response Books	Dalip Singh	1
12	English for Technical communication	Cambridge University Press	Sudharshana N P	2
13	English language communication Skills: Lab Manual cum Workbook	Cengage Learning	Rajesh Kumar	15
14	FISH !	hyperion	Lundin, Stephen. C	3
15	Freedom At Midnight	Vikas Pub	Lapierre, Dominique.	6
16	Freedom in Exile	Abacus	Dalai lama	1
17	General Studies Paper I: for Civil Services Preliminary Examination	Mc Graw Hill	Tara chand	5
18	General Studies Paper-II: for Civil Services Preliminary Examination	Mc Graw Hill	Arun sharma	5
19	Kautilya's Arthashastra	Jaico Pub	Kautilya's	1
20	My Journey: Transforming Dreams into Actions	Rupa	A P J Abdul Kalam	1
21	Puzzles to Puzzles you	Orient Blackswan	Shakuntala Devi	7
22	Quantitative Aptitude	S.Chand	Aggarwal R.S	10
23	The Great Book of Puzzles & Teasers	Jaico Publication	Summers,George J	12
24	The Great Indian Dream	Vikas Pub	Chaudhuri, Malay	3
25	The Monk Who Sold his Ferrari	Jaico	Sharma, Robin	6
26	The Story of my experiments with truth	Classics	M K Gandhi	1
27	The Winner stands Alone	Harpercollins	Coelho,Paulo	1
28	Tough Times Never Last But Tough People Do	Bantam Books	Schuller,Robert H	1

**Costly Books, Special Books**

Sl No	Name of the book	Publisher	Author	No. copies
1	Journey from rapid prototyping to rapid manufacturing	LAP LAMBERT	Somanath chattopadhyaya	1
2	Water Resources Systems Planning and Management	Elsevier	Jain,S K & Singh,V P	5
3	Tunnel Engineering Handbook	CBS Pub	Bickel,John	5
4	Foundation Engineering: Handbook	CBS Pub	Fang	5

**4.2.3 Does the institution have the following:**

**1.e-journals**

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

**A. Any 4 of the above**

**B. Any 3 of the above**

**C. Any 2 of the above**

**D. Any 1 of the above**

**Response:** A. Any 4 of the above

File Description	Document
Details of subscriptions like e-journals,e-ShodhSindhu,Shodhganga Membership etc	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

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

**Response:** 2.72

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

2018-19	2017-18	2016-17	2015-16	2014-15
5.7	2.7	1.7	1.1	2.4

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>

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

**Response:** Yes

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

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

**Response:** 2.14

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

Response: 15

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

### 4.3 IT Infrastructure

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

**Response:**

##### Description of IT facilities

All computers on the campus are connected to the internet as it is essential, also surplus Ethernet ports are provided for laptops or other devices in need of internet connectivity. A separate team with in-house staff is formed to take care of the IT & related needs of the campus such as Software Development, Hardware & Networking, Email solutions, etc.

##### Growth of IT infrastructure in the past five years

Facilities	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19	2019-20
Number of computers	199	199	199	259	279	279
Printers	8	10	12	13	18	20
Scanners	4	6	6	6	8	11
Wi-Fi Access	3	3	3	3	5	9

points						
Open source software	Fedora5.0 -20 Users	Ubuntu-12.04 -30 Users		Ubuntu-14.04 – 60 Users	Ubuntu-16.04 - 30 Users	Ubuntu-16.04 - 30 Users
	NCTUNS-20 Users				Ubuntu-14.04 – 60 Users	Ubuntu-14.04 – 60 Users
Licensed software	Win 7 Prof -100 Users	Win 7 Prof -100 Users	Cymplex -15 Users	Tally Erp Gold – 01 users	Matrix - 01 Users	Matrix - 01 Users
	Cal License -100 Users	Cal License -100 Users	Pupil pod – 01 user	Pupil pod-01 users	Matlab- 05 Users	Matlab- 05 Users
	Windows Server 2008-01users	Windows Server 2012-01users	Cymplex – 15 Users.		ETABS – 10Users	ETABS – 10Users
	Office std2010		Saral PayPack		MS Project-10 Users	MS Project-10 Users
	WinRmtDSK		Matrix			
	Tally ERP 9		PupilPod		LibSoft-03 users	LibSoft-03 users
	Lab View					
	Solid Edge 3d Modeling-60 Users					

	<b>MASM</b>  <b>Keil PK51- 25 Users</b>  <b>Libsoft 9.8.0</b>  <b>1-Server, 2-Client</b>  <b>Ansys Software-32 Nodes.</b>  <b>CADEM – 30 Nodes</b>				
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**4.3.2 Student - Computer ratio**

**Response:** 2.98

<b>File Description</b>	<b>Document</b>
Any additional information	<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:** 20-35 MBPS

<b>File Description</b>	<b>Document</b>
Any additional information	<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:** 7.16

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)

2018-19	2017-18	2016-17	2015-16	2014-15
18.94	11.54	20.33	17.60	8.40

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>

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

The physical, academic and support facilities like classrooms, laboratories, seminar halls, amphitheater, library, sports center, computers, transport, hostel, etc., are well maintained by the GCEM facility management team. Several persons were involved in the maintenance of buildings, furniture, electricity, generator, transport. A separate register is maintained for the activities and periodical services. Gardeners and housekeeping staff keep the campus clean.

**Class Rooms and Laboratories**

The readiness of classrooms and laboratories is ensured at the beginning of each semester for its

cleanliness and the sufficient number of the dual desk is kept ready for students. The periodical visit will be done for other facilities like fans, tube lights, etc., by the facility management team and any kind of repair works will be undertaken immediately.

Do's and don'ts are displayed for all the labs. & periodic servicing of equipment/instruments is carried out. Safety precautions like first aid kit, Fire extinguisher are kept in place. Students are instructed to follow the safety precautions in the laboratory as described. Fire extinguishers are available on each floor with a fire alarm facility. First aid box is available exclusive for chemistry and environmental engineering laboratory where chemicals are handled.

Lab manuals are available in all the laboratories for student's reference. The student's logbook is maintained at the entry. The stock register is maintained in the laboratory. Stock verification is done at the end of each semester. The issues/shortfalls identified during the stock verification will be addressed in time.

### **Sports Complex**

The sports facilities are maintained by the physical education department. Cricket, football, badminton, table tennis, indoor cricket, etc has to be booked well in advance for the optimal usage of facilities. The logbook is available for utilizing the facility and material required for the activity.

A stock register and an issue register are maintained to ensure proper handling of the sports items. Stock verification of the sports items is conducted at the beginning of each semester. Regular maintenance of the play area is conducted under the supervision of the Physical education director. CCTV is available in all sports area to assure the safety and minimize any illegal activity.

### **Library**

Physical verification of books is done at the end of the semester to check whether the books are in good quality and numbers. Stock verification reports are filed in a separate file. Torn books and missing books will be replaced after getting approval from the head of the institute. All the documents related to the library are well maintained in separate files with tags on it. The new book list will be displayed on the library notice board. Student's entry and exit are being monitored by the register. The issue of books is verified at the exit of the library.

### **Computers**

Computers are well maintained by the IT department. Software requirements as per the scheme are prepared and sent to the IT department and it will be kept ready for use well in advance before the commencement of classes. Any issues related to software and hardware are rectified on high priority bases. Obsolete hardware is discarded and it is replaced by new devices whenever needed.

### **Others**

Site engineer is available within the campus to take care of the extension activity and maintenance work in the building. The cleanliness of the academic and administrative area is maintained by housekeeping staff.

Adequate facilities are available to cater to the needs of physically challenged people. Some of the basic

infrastructure facilities available for the differently-abled are:

1. Elevators in every block
2. Ramps with handrails at the entrance of the buildings.
3. Wheelchair

NAAC

## 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:** 31.85

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

2018-19	2017-18	2016-17	2015-16	2014-15
229	237	274	179	131

#### File Description

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

#### Document

[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:** 2.74

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

2018-19	2017-18	2016-17	2015-16	2014-15
31	20	25	7	8

#### File Description

Any additional information

#### Document

[View Document](#)

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

1. For competitive examinations
2. Career counselling
3. Soft skill development
4. Remedial coaching

- 5. Language lab
- 6. Bridge courses
- 7. Yoga and meditation
- 8. Personal Counselling

A. 7 or more of the above

B. Any 6 of the above

C. Any 5 of the above

D. Any 4 of the above

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

File Description	Document
Details of capability enhancement and development schemes	<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:** 10

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

2018-19	2017-18	2016-17	2015-16	2014-15
68	229	47	0	0

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

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

**Response:** 0

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

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0

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

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

**Response:** Yes

File Description	Document
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	<a href="#">View Document</a>
Details of student grievances including sexual harassment and ragging cases	<a href="#">View Document</a>

## 5.2 Student Progression

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

**Response:** 22.29

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

2018-19	2017-18	2016-17	2015-16	2014-15
63	49	21	13	18

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

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

**Response:** 7.43

5.2.2.1 Number of outgoing students progressing to higher education

Response: 11

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:** 43.93

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

2018-19	2017-18	2016-17	2015-16	2014-15
8	3	3	3	0

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

2018-19	2017-18	2016-17	2015-16	2014-15
14	8	6	4	2

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.**

**Response: 1**

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

2018-19	2017-18	2016-17	2015-16	2014-15
0	1	0	0	0

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

**Response:****Class Representatives:**

Two students from each class (a girl and a boy) are selected by the other members of the class to represent them. This selection is done in an unbiased manner during the commencement of every semester.

**Role: Class representative**

- Acts as a prime official channel to monitor the formal activities of the class.
- Have a good warp out with all students and have a cordial relation with them.
- Make announcements to other students at the beginning and then the periodic ones (tutorial, submission or any other notification).

**Class Committee:**

Class representatives from each class along with the faculties handling the subjects form this committee. A faculty not handling the subject in the class forms the Chairman. A meeting is conducted before and after every internal assessment to discuss the examination schedule, syllabus completion and any other suggestions of the class for improving the teaching and learning process.

**Role:**

- To work closely with teachers to ensure the smooth running of class activities and inform problems

- or challenges within the class.
- To maintain discipline in class.
- To come up with Duty Roster for the class and provide gentle reminders to classmates to do their duties.

### Techno-Cultural Committee:

From each department, one student representative from the final year is selected as Technical and Cultural Head. These students form this committee. They are responsible for coordinating our Techno Blaze and Entrails. They are also responsible to co-ordinate other cultural events organized in the college.

#### Role:

- The head, selected from each department, is responsible to coordinate the technical events of their department. The head will collect the suggestions on the common technical and cultural events from their department. The committee will finalize the events, theme.

**Sports Committee:** One student representative from the final year of each program is selected as Sports Head. These students this committee who are responsible for coordinating our college Sports Day. They are also responsible to coordinate the game events organized in the College.

#### Role:

- To be the class contact person in activities related to sports and wellness.
- The head will collect the suggestions on the common sports events from their department. The committee will finalize the events.

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

**Response:** 1.8

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

2018-19	2017-18	2016-17	2015-16	2014-15
1	3	1	2	2

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 network has a real-life benefit for current students. Alumni also donate their valuable time to offer career support to current students. This enhances the students' experience and gives them that competitive edge in today's tough job market. Alumni can help students get placed at their respective organizations.

- Keep them in the loop. Ideally, alums move on from their college experience with the proper tools to land a great job, and often this means moving away from their college or university.
- Don't overdo the exclusivity aspect. Never ostracize alumni who have not donated.
- Make the association meaningful.

GCEM Bangalore was established in 2010. The first batch was passed out in 2014. An informal Alumni Association of GCEM was formed in Alumni meet 2017. The students formed the association with a view to maintaining their warm bond with their campus. We also created Industrial interaction with the association of Alumni students in Alumni meet 2018.

In 2018, the college registered the Alumni Association with number DRB3/SOR/573/2018-2019 in Karnataka Government. Three Alumni Association meets are conducted by the college so far. The GCEM College of Engineering Alumni Association aims to link the alumni to the institution, develop synergistic plans to support the institution and achieve its vision, and to enable the institute to add value to all its stakeholders.

#### The Objectives of the Alumni Association

- To provide a forum to establish a link between the alumni, staff, and students of the institute.
- To enable the alumni to participate in activities that would contribute to the general development of the institute and society.
- To help the alumni with their technical and relocation problems.
- To try to find employment opportunities for students and fellow alumni members in need.
- To support academic activities like conferences workshops, technical symposiums.
- To contribute towards the welfare of the alumni.
- To keep the alumni abreast of scientific and technological developments of national and global importance.
- To give scholarships to meritorious students.
- To give awards to toppers of all branches of engineering.
- To arrange seminars and debates for technical guidance to students for knowledge and career advancement.
- To do such other lawful things as are conducive or incidental to the attainment of the above objectives and/or beneficial to the interests of the institute and its alumni.
- To promote entrepreneurship & innovation among the students.
- To help institute an effective liaison to industry.

- Create a community to share experiences and memories about time spent at GCEM.

**NON-FINANCIAL ACTIVITIES:**

- To arrange and support in placement activities for the students
- To conduct workshops, guest lectures, skill development program and FDP.
- To encourage and guide the students of the college on self-employment to become entrepreneurs.
- To promote the industry-institute interaction to bridge the gap between industry requirements and education offered and enhance students' employability.

File Description	Document
Any 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

File Description	Document
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:** 3**5.4.3.1 Number of Alumni Association /Chapters meetings held year-wise during the last five years**

2018-19	2017-18	2016-17	2015-16	2014-15
1	1	1	0	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>
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:

##### VISION

To be the institution of choice with contemporary knowledge coupled with values contributes to the society through excellence in technical education and research by continuous innovation.

##### MISSION:

##### The vision will be realized by:-

- Achieving Excellence in Teaching-Learning Process Using State-Of-The-Art Resources.
- Develop industrial collaborations to promote research and innovation capabilities of faculty and students.
- Inculcate entrepreneur skills with high integrity to serve the society.

##### Nature of Governance:

##### We at GCEM shall work continuously to achieve:

- Work with integrity- We act with honesty. We build people
- Innovative & delivers-We fulfill commitments. We architect excellence
- Work together-We work as a team. We promote communities.

GCEM was founded by 'Mr.C.Gopalan', chairman, Gopalan foundations in the year 2010 with a revelation to produce quality engineers to uplift the status of the society in all regards. The institution is recognized by AICTE and affiliated to VTU, Belagavi, Karnataka. All the efforts made by the institution body to achieve the vision and mission are the very nature of governance of the institution. The governing council body along with the chairman set a clear goal to improve the academic progress.

The management encourages and gives the freedom to implement every possible step to achieve this goal. The principal, vice-principal and all the HOD delegate the responsibilities in accordance with the chain of command. The decision making is taken both centralized and decentralized manner. The principal, vice-principal and all the HOD's prepare the academic calendar and plans activities like Industrial visits, Conferences, Workshops, Seminars, FDP's, Sports activities, Cultural activities accordingly. The staff council ensures to fulfill the duties and adopts different techniques in the teaching-learning process.

The institution also focuses the student's skill development as indirect guidance to this career in order to be both technically and non-technically fit by entertaining soft skill training, internships on the respective discipline, workshop which includes hands-on training and technical seminars.

The institution has highly experienced and qualified doctorates in all the discipline who actively takes efforts along with the staff council as members to get accreditations and research centers for the respective discipline and the management willingly contribute towards it by providing quality infrastructure.

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

#### **Response:**

The college observes decentralized decision making in order to encourage transparency in staff both in academics and administration.

The chain of command consists of management and principal in the top hierarchy followed by the vice-principal and the head of departments in the middle level and the staffs in the lower level hierarchy. The corresponding activities are proposed by the principal and head of departments and approved by the management. Committees are formed for every subtask consists of staff from every department as members headed by main co-ordinators for every committee and circular are sent and changes in the committee members are encouraging according to the staff's interest and passion.

The regular meeting is held for various committees which gives a platform for every member to express his/her ideas. The budget for the respective committee is discussed with the members and main co-ordinators and the proposal is given to the principal for further decision making. Thus decentralization improves decision making and has produced results in terms of coordination, idea generation and personal growth towards academics and administration.

The various activities are conducted in a decentralized manner like Graduation day, Estralis, Science day, an Orientation day, Sports day, FDP, Conference, Blood donation camp, and NSS camp, etc.,

#### **Case Study: Conduction of 'Estralis'**

Estralis is a cultural fest organized and conducted by the college personnel every year to mark the budding talents in every student on different aspects judged for various events.

The main objective of this fest is to encourage the faculties and students to invest their ideas and bring the talents to light and also gives a platform to excel in event organization and management skills.

The main coordination committee is formed along with various committees for each event. Each committee's members are responsible for their respective events. The task for each event includes decision making for events venue, date & timings, judges and judging criteria, conduction procedure for each event and hospitality.

Regular meetings will be held for all the event committee members at different times for different events which involve a presentation by the committee members.

On the day of the program, the MoC welcomes everyone and the fest is officially opened by the director of the college after which the respective events will be commenced at the respective venue and time. The results will be announced in the valedictory function. The valedictory program will be entertained with

prize distribution followed by celebrities' performance and DJ night.

## 6.2 Strategy Development and Deployment

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

#### Response:

The institute has a **strategic plan** which includes getting permanent affiliation for all UG, getting NBA accreditation, to create center of excellence, getting NAAC accreditation, strengthening the campus facility, improving the teaching-learning process, providing Personality development program for the students, providing Faculty Development Training, empower the mentoring system and enhance the output in research and consultancy.

One of the strategic plans initiated by the institution is to improve academic performance through mentoring. The mentoring system is quite evident in improving the academic performance and one of the important ingredient towards achieving the objectives and goals of the institution. The strategic plan brings discipline in every student and one of the platforms to realize the responsibilities they have towards the society and nation.

Every staff is assigned a minimum of 15 students [max.22] as mentees. The mentor-mentee meeting is held every week where each student discusses his/her performance and grievances in the respective time slot and the mentor motivates and addresses the problem to his/her best capability.

Every student is given a mentor form which consists of personal details along with the marks they secured in the previous semesters and the points discussed with the mentor after which mentor meets the principal to discuss the performance of the students. Then the mentor identifies the irregular and poor performers and informs his/her parent to meet the mentor and H.o.D. after which the student is counseled in the presence of the parent in which course the parent also motivated to encourage their wards. Also, special classes for poor performers are conducted regularly after every internal assessment. Hence this way every student is responsible and accountable to both their mentor and parent and this brings a positive change which is reflected in their academic performance.

### 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:

Receptive management stands as an asset to the system and stakeholders. The Governing Council takes the responsibility of monitoring the implementation of activities in the institutional strategic plan. Though a few vital goals are achieved within a short span of time, the council of top management, HOI, HODs, teaching, non-teaching, students and stakeholders work as a team to reinforce the culture of excellence. "To be the institution of choice to make our nation a better place through quality technical education" is the motto of the institute, excellence in every sphere is ensured not only through the mission

and strategies but also in various programs executed. Below is the list of pivotal activities.

- Adopting procedures for contemporary teaching-learning processes
- Monitoring the procedures and Progress by the HODs & HOI
- Analyzing the feedback from students, parents, and experts
- Understanding the above-said feedback and improving services

Continuous and meticulous efforts are ensured to maintain quality in both academic and administrative levels. ISO audit is conducted and subsequently, recertification is granted.

The principal is the chairperson of the administrative and academic activities of the institution. Heads of the departments take the responsibility of heading all the administrative and academic activities of the department. The HODs possess both the academic and financial autonomy in accordance with all academic aspects. They are entitled to take decisions as per the needs of the situations in exigencies and get them ratified by the Head of the Institution subsequently at a later stage. The Principal, HODs and the Co-ordinators are sanctioned imprest amount, for seeing the execution of multiple events scheduled. Based on the experience and the expertise of the faculty members have been identified to coordinate the different teams which are functioning effectively. They can act spontaneously for molding / grooming the members of their teams and they have been identified as second rung coordinators.

Recruitment of teaching, non-teaching and office administration staff is planned at the end of every academic year as per the requirements of the next academic year. The staff appraisal system is in existence in tune with the promotional policies. The grievance redressal mechanism helps us to serve better by understanding the expectations.

#### **Governing Council members:**

<b>S.No</b>	<b>Designation</b>	<b>Name</b>
1	Chairman, Gopalan Foundation	Mr. C. Gopalan
2	Vice President, Gopalan Foundation	Mr. C. Pramod
3	General Secretary, Gopalan Foundation	Dr. C. Prabhakar
4	Principal, Gopalan College of Engineering and Management	Dr. N.Sengottaiyan
5	VTU Nominee, Principal,	Dr. A.G. Nataraj

	Bangalore Institute of Technology	
6	Industrialist	Mr. Arya Rajesh Kumar
7	Auditor, Gopalan Foundation	Mr. Hari Haran

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:** B. Any 4 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>
Any additional information	<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:**

With the leadership of the Principal, every committee will be assigned specific tasks pertaining to

the requirements of conducting college functions. Heads of the committees monitor the works. A minimum of two meetings will be held prior to the function in the presence of Director, Principal, HODs and Committee head. The committees constituted are not permanent. Members are reshuffled for change of committees for different functions. This enables the members getting familiarized with any kind of activities related to any function. The conduct of functions fosters relationships and nurture unity.

The following are the minutes of the meeting held for the successful conduct of 6th Graduation day on 02.05.2019.

The principal welcomes all the committee members to the meeting after which the discussion takes place committee wise. Every committee members are assigned works accordingly:

**Invitation Committee** –To prepare the invitation card and Invite the guests

**Certificates/Memoir committee** – To prepare the name list of Graduating students and best outgoing students

**Academic dress (Graduation gowns) committee** – To order the gowns for the graduating students and the dignitaries

**Photographs/Video/Group Photos committee** - Arranging for photoshoot

**Reception/Registration Committee** – To receive the Chief Guest and invitees

**Stage committee** – To prepare the banner, name boards and required arrangements for the smooth conduction of the program

**Seating arrangement committee** – To prepare the list of students and arrange seat department wise

**Discipline committee** – To implement necessary measures to ensure the discipline throughout the program

**Refreshment committee** – To decide the menu and place an order

**Prizes to toppers committee** –To prepare the name list of toppers and best outgoing students

**Hospitality committee** – To arrange the vehicle to pick up the chief guest and arrange for refreshments

**In the academic year 2018-19, the 6th Graduation Ceremony was organized on 25.05.2019, Dr.V.R.Manjunath, Principal, Sir M Visvesvaraya Institute of Technolgy, Bangalore graced the occasion as the Chief Guest.**

The following committees were constituted for the successful conduct of the 6th graduation day and the committees were entitled to execute the tasks as discussed in the minutes of the meeting held on

02.05.2019

**Invitation Committee** - Prepared invitation card and Invited the guests

**Certificates/Memoir committee** - Prepared the certificates for Graduating students

**Academic dress (Graduation gowns) committee** - distributed the gowns to the graduating students and the dignitaries

**Photographs/Video/Group Photos committee** - Arranged for photoshoot

**Reception/Registration Committee** - Received the Chief Guest and the invitees

**Stage committee** – Prepared the required resource for the program

**Seating arrangement committee**- seats were arranged according to the name list

**Discipline committee** – Discipline maintained throughout the program

**Refreshment committee** – Foods were served

**Prizes to toppers committee** – Prizes distributed

**Hospitality committee** – Ensured hospitality to all the guests

**The following sequence of activities was done after constituting the committees.**

- Conducting meetings for the committee heads with members
- Circulation of the Minutes of the Meetings among the members of the committees
- Execution of activities as planned
- The successful conduct of the function

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

## 6.3 Faculty Empowerment Strategies

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

**Response:**

The welfare measures extended to the teaching and non-teaching staff at the institution are as follows

- The faculty members can avail 9 days CL per year, 2 RH and 15days vacation leave per semester. 9 days CL, 2 RH and 22 days EL per year for non-teaching faculties.
- Also on duty leave facility for attending workshops, conferences, and seminars are given. The medical facility is provided for the non-teaching faculties.
- All the staff who are eligible as per the staff's provident fund legislation are enrolled as members of the employee's provident fund. The institution contributes 12 %of the pay subject to the ceiling of Rs.1800 per person towards the employer contribution to the EPF and Gratuity scheme. The college deducts 12% of the pay from the salary of the individual staff every month.
- Financial support is provided for teaching faculty for workshops, FDP's, conferences & seminars. The non-teaching faculty is also financially supported for skill development.
- Uniform is also provided for drivers, attenders and securities.
- Group medical insurance is provided for all the teaching and non-teaching faculties.
- College bus facility is provided for the teaching and non-teaching faculties at subsidized rates.
- Also, transport is provided for special events like industrial visit and campus placements and other official purposes. Canteen facility is also provided for all staff.
- A variety of Indian food items are provided to the staff of the college at highly subsidized rates with the highest quality.
- Maternity leave can be availed by both teaching and non-teaching staff without salary.

### 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:** 0

#### 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

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0

#### File Description

#### Document

Details of teachers provided with financial support to attend conferences,workshops etc during the last five years

[View Document](#)

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

**Response:** 0.8

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

2018-19	2017-18	2016-17	2015-16	2014-15
4	0	0	0	0

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

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

**Response:** 12.59

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

2018-19	2017-18	2016-17	2015-16	2014-15
21	11	1	0	1

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

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

**Response:**

The institution has introduced the method for both the academic and administrative performance for the teaching staff. This methodology evaluates teachers based on academic results and student feedback, Research publications/conferences, participation in various co-curricular and extracurricular activities.

A self-assessment form submitted by every teaching staff gives the details of his/her performance and participation in various activities assigned to him/her by the department/college. The appraisal is evaluated in six categories namely, Academic activity, Research & Consultancy, Administrative responsibilities, Faculty development programmers/seminars/conferences/workshop conducted/attended, Student co-academic activity conducted, Co-curricular and Extra-curricular activities, every category has a maximum score of 100 percent out of which the minimum requirement 50 percent after which the respective Hod

give their remarks respectively.

The management evaluates the appraisal system for every staff based on their performance for that academic year. The salary is revised periodically based on the performances reflected through Academic activity, Research & Consultancy, Administrative responsibilities, Faculty development programmers/seminars/conferences/workshops conducted/attended, Student co-academic activity conducted, Co-curricular and extra-curricular activities. This methodology has proved to identify and reward the meritorious in an unbiased manner.

A new methodology is introduced from this academic year (2018-19) for evaluating faculty performance with the weight of Academic (50%), Administrative (20%), Research (20%) and Achievements (10%).

## 6.4 Financial Management and Resource Mobilization

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

#### Response:

The financial audit for both internal and external are conducted regularly. All the financial transactions and expenditures with the supporting documents will be verified by the respective authority for each financial transaction. The auditors make regular visits and evaluate the financial statements to check for error-free materials. The assessment includes the accounting methods implemented and the management estimate and evaluation of overall financial statements. The reports will be generated after the audit which reflects the overall fair performance.

#### Audit procedures:

##### 1. Source of income verification:

Auditor will cross verify the fee collections with an approved list of students like:

- List of students with KEA list for the first year CET admission students and list sent to VTU for the first year management admission student.
- An eligibility list of students approved and sent to VTU for higher semester students.
- Other incomes cross verified with the receipts issued to the students.
- The fee amount receivable and the amount received will be reconciled.

##### 2. Expenses Vouching:

- The auditor will vouch for payment with the approved supporting.
- The correctness of Classification revenue and capital expenses.
- Reconciliation of bank accounts and checking the bank confirmations. Reconfirmation of unreconciled items.
- Calculation of depreciation of fixed assets.
- Status of the old debit/ credit balances.
- Checking of statutory dues payment like PF, TDS, PT and ESI before the due dates.

- Salaries payments with the salary statements.
- Any other statutory compliance verification required as per the Income Tax Act.
- On such verification, any discrepancies will be discussed and sorted with the management.
- One all financial transactions are accounted for and based on that financial statement like Balance sheet and Income and Expenditure for the financial year-end.
- Such financial statements will be signed and approved by Auditor and Management. Based on the audited financial statements, the auditor will issue “ Audit Report”

#### **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:** 0

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

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0

#### **File Description**

#### **Document**

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

[View Document](#)

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

**Response:**

#### **Sources of funds:**

The following are the resources for funds.

1. Student tuition fees.
2. Fees for other rendered services to the students like bus fee, fines for ID card loss, hall ticket loss, etc.,
3. Collections for co-curricular activities like workshops and skill enhancement activities.

#### **Mobilizations of funds:**

The short term deposits will be used for the monthly salaries for staff, campus maintenance, resource training, lab consumables, AMC charges for maintenance of Lifts, Air conditioners, etc, library books purchases, expenses for workshops, events, Faculty Development, and student skill development programs, admission process, college promotional expenses, etc.

### **Funds utilization strategies:**

- 1.The decision for the budget amount to be allocated annually will be discussed according to the financial requirements of each department.
- 2.Ensure optimal utilization of the resources according to the plan.
- 3.The modern sports complex has been created to provide ample opportunities for the conduct of sports and enabling student participation.
- 4.Enough care is taken to maintain cleanliness in the campus which coexists with godliness and fund is judiciously utilized.

## **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:**

Internal Quality Assurance Cell (IQAC) started its function from June 2019. One such example is the Academic Assessment Audit which is carried out through the Internal Quality Assurance Cell (IQAC) by Academic Assessment Audit committee members. The objectives of IQAC are to develop a system for consistent action to improve and sustain the academic and administrative performance of the Institution.

To assure the quality of the institute, various committees are formed under IQAC to monitor the performance of the Institute. IQAC assesses the improvements in quality under a different head. Based on the recommendations of the IQAC, the merits & areas of improvement for each program are highlighted for further action. Academic Audit is conducted by IQAC twice in a semester.

IQAC considers the following criteria for the academic audit of each program. There are four distinct formats to evaluate and are as follows:

1. Theory Course File
2. Lab Course File
3. Personal File
4. Department file

IQAC ensures that faculties are fully briefed to carry out their roles appropriately. They ensure that records of each semester are kept accurately and securely and provide feedback to faculty members to implement suggestions.

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

**Response:**

The Institute reviews its teaching-learning process, structures & methodologies of operations and learning outcomes once in a semester through IQAC. In addition, the teaching-learning process is reviewed in the meetings of HODs, Department faculty meetings, and Class Committee Meetings appropriate measures are taken at regular intervals of time. Sample suggestion of IQAC is the use of innovative teaching methods; organize Workshops, National conferences, and programs on content beyond syllabus; undertake Research Projects and avail Professional bodies funding; Motivate faculty for registering for Ph.D.

The class committee meeting is conducted on a regular basis before and after the internal assessment. The feedback for each course and the effectiveness of teaching-learning is obtained from the course coordinator and the student's representatives. The quality of the teaching-learning process is improved based on the recommendations from the chairman of the committee.

The course co-ordinator takes feedback from the students at the end of the semester on the teaching-learning process about the course. The feedback is computed and analyzed to determine the areas in which faculty are strong and areas to be improved for the particular course.

Also, the teaching-learning process is audited by the Academic auditing committee (under IQAC) to ensure its effectiveness and proper documentation.

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

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0

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

**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>
e-copies of the accreditations and certifications	<a href="#">View Document</a>
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:**

The IQAC functions in collaboration with the college council, exam section, the college office, the library, and placement & training cell for an integrated approach towards quality assurance for the improvement of the institution. The college Principal is the chairperson of IQAC. All the decisions of IQAC are made with the approval of the Principal and all the decisions are implemented in phases.

Institute has four undergraduate programs with a total intake of 240 students. At present fifth program is approved with a total intake of 300 each year.

GCEM has excellent Infrastructure facilities and sports facilities for its students. To felicitate the teaching-learning beyond the conventional methods all the classrooms are provided with LCD/Wifi/LAN.

Faculties with the Ph.D. degree is increased from 2 nos. to almost 16 Ph.D. holders within five years in the institute. The entire faculty is having a minimum qualification of a Master's degree in their respective disciplines.

The training & placement department has seen tremendous growth with respect to the number of effective training programs conducted and corresponding placements in leading companies over the past five years.

IQAC & Institute level committees are constituted at the beginning of every academic year with specific duties & responsibilities, which are functioning effectively.

## 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:** 3

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

2018-19	2017-18	2016-17	2015-16	2014-15
0	1	1	0	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:**

GCEM is following an open and clear system of **staff selection** purely on the basis of merit for recruiting male as well as female staff members. The selection is carried out through an open advertisement followed by a demonstration by the candidate in the classroom, appearing for a personal interview, etc.

GCEM takes serious consideration in aspects of gender sensitivity issues with zero tolerance towards issues like sexual harassment, anti-ragging, etc. The college ensures that the students cultivate an all-round personal development with sensitivity towards their fellow beings.

**Anti-Ragging Committee:** Prevention of ragging, enquires ragging complaints and takes action, get an affidavit and disseminate awareness among higher semester students

**Internal Complaints Committee (ICC) – Women:** Considering complaints of sexual harassment of women working in college and take necessary action

**Women Empowerment Cell**

- To empower and safeguard the rights of female members; faculty staff and students of College.
- The WEC works to promote gender sensitivity in the college and conduct diverse programs to educate, sensitize both male and female members and produce a harmonious atmosphere on the campus.
- It works for the welfare of the students and faculty towards preparing them into competent professionals to take up greater challenges in the academic sphere.

### Safety and Security:

1. **CCTV Facilities:** The college is equipped with 24/7 CCTV facilities in the classroom, corridors, canteen, office area and surrounding areas of the campus. These are constantly being monitored and these will prevent any misbehavior of students and harassment of any sort.
2. **Security Personnel:** The college has round the clock security personnel both men and women deputed in the college corridors and on the campus.
3. **Access Card:** The students and staff members are provided with an access card facility and allowed inside the college premises only after swiping the card. This ensures no unauthorized people enter into the college premises.
4. **The Disciplinary committee:** member comprising of senior faculties depute faculties in the corridor and the college premises, during short break and lunch break to monitor the students.

### Counselling:

GCEM students must adapt to environments overwhelmed by rapid change, doubt, uncertainty, and minimal support systems. Students must also cope with countless personal problems that range from academic and learning and career concerns. Within higher education, there exists general harmony that the ever-present role of personal counselling is to contribute to student development, adjustment, and learning while preventing dangerous and self-defeating behaviour, thus enabling the individual to thrive in the community. Depending heavily on the institution's vision and mission, we have formed a counselling cell comprising of one faculty representative from each program with available resources on our campus which are headed by Ms. Balavidhya. This counselling cell function apart from the regular schedule of mentoring that is held every week. GCEM holds superlative records over the mentor-mentee ratio.

### Common Room:

- Common Room for relaxation and rest in times of sickness is available with essential facilities like first aid box, bed, etc
- Common reading room for students to utilize for undisturbed studying.

### 7.1.3 Alternate Energy initiatives such as:

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

**Response:** 13.15

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

Response: 39480

#### 7.1.3.2 Total annual power requirement (in KWH)

Response: 300167

File Description	Document
Details of power requirement of the Institution met by renewable energy sources	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link for Additional Information	<a href="#">View Document</a>

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

**Response:** 15.81

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

Response: 8468

##### 7.1.4.2 Annual lighting power requirement (in KWH)

Response: 53545

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

#### 7.1.5 Waste Management steps including:

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

**Response:**

Waste management is the activities and actions required to manage waste from its inception to its final disposal. This includes the collection, transport, treatment and disposal of waste, together with monitoring and regulation of the waste management process. Bearing the social responsibility in mind GCEM is working in the direction of waste management, in all areas like solid, liquid and e-waste.

#### **Solid Waste Management:**

Effective solid waste management is extremely important for a number of reasons. The institute

categorizes waste based on material, that pertains to the origin of the waste, whether domestic or construction and destruction. Solid waste is managed systematically to ensure environmental best practices. As solid waste management is a critical aspect of environmental hygiene, is incorporated into environmental planning.

GCEM takes at most care in the waste management of solid. The solid waste is segregated as bio-degradable and non-biodegradable in the respective bins (green and blue bins), that are kept at different solid waste collection points.

The bio-degradable food waste collected from the canteen, hostel mess, and student's lunch is collected in the green bins and then they are transferred to the “**Three-phase RNATURA 100kg Organic Waste converter**” machine, which is fully automatic. The waste is converted to compost and they are used as manure for the garden on the campus.

The non-biodegradable waste, that includes dry waste like papers, covers, etc., are segregated. The BBMP (Bruhat Bangalore Mahanagara Palike) collects this waste from the college every day in their vehicle.

#### **Liquid Waste Management:**

The campus is housed with a Sewage Treatment Plant (STP) to treat the wastewater from bathrooms, mess, etc., and use them for watering the plants. The wastewater from all the sources is directed to the STP through proper drainage pipes and transferred to the STP and the water is treated, where the toxins are removed and made suitable for other usages. The treated water is used to water the plants in the garden and in flushes in bathrooms. Primary treatment is the process of mechanically removing the solid materials present in the water through metal screening. Secondary Treatment is the biological oxidation of organic matter. It is achieved by filter method or by sludge process. This Tertiary Treatment method is an advanced form of the chemical and physical process.

The most common methods in this treatment are the precipitation of suspended particles, filtration with carbon to resolve to dissolve organic compounds and reverse osmosis by passage through a membrane to remove dissolved organic and inorganic materials.

#### **E-Waste Management:**

Improper dismantling and processing of e-waste render it perilous to human health and our ecosystem. Therefore, the need for proper e-waste management has been realized by GCEM. We consider used electronics that are destined for refurbishment, reuse, resale, salvage recycling through material recovery, or disposal as e-waste. The e-waste is collected in bins specific for the purpose; these are then sold to junkyards dealers.

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

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

**Response:**

Water is, undoubtedly, the top natural resource needed for everyone to use. Rainwater harvesting is the process of collection of rainwater from surfaces on which rain falls, filtering it and storing it for multiple uses.

Rainwater harvesting puts the supply of water back to normal levels. It is the collection and storage of water from surfaces that rain has fallen upon.

Great ecological benefit of rainwater harvesting systems is that they help reduce the load placed upon drainage systems, minimizing the impacts of flooding by funneling the runoff water into large tanks for recycling.

Rainwater harvesting systems are cost-effective, provide high-quality water, reduce dependence on wells. The surplus rainwater can also be used to recharge groundwater aquifer through artificial recharge techniques

Rainwater harvest tanks are constructed to prevent soil erosion and increase the underground water level. Rainwater harvesting technology collects, convey and store rainwater for later use from relatively clean surfaces such as a terrace and from the flowing water in the land. The collected water from the roof is filtered and stored for further uses.

Rainwater Harvesting is a simple technique of holding rainwater where it falls. Either, we can store it in tanks for further use or we can use it to recharge groundwater depending upon the situation. RWH system provides sources of soft, high-quality water that reduces dependence on well and other sources and in many contexts are cost-effective. RWH system is economically cheaper in construction compared to other sources, i.e. well, canal, dam, diversion, etc.

The rainwater is channelized towards bore wells to raise the groundwater level. Since the college well is much below the road level, the water level rises in the rainy season. Water collected from the terrace by PVC pipe outlet depends upon the area and number of pipes provided. Water is flowing through the chamber and drainage. The drain wells are constructed for water collection & recharge of the surrounding ground. Drain connected from all the buildings flows towards a lower level through the external drain. Rainwater pit is filled with gravels and sand for the percolation of water for recharging the groundwater.

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

**7.1.7 Green Practices**

- **Students, staff using**
  - a) **Bicycles**
  - b) **Public Transport**
  - c) **Pedestrian friendly roads**

- **Plastic-free campus**
- **Paperless office**
- **Green landscaping with trees and plants**

**Response:**

**Bicycles:** Few students staying in the close vicinity of the college are using the bicycle. As the college campus is small, bicycles are required to commute within the college premises

**Public Transport:**

- Most of the students and faculties of GCEM avail BMTC buses. The college is easily accessible from Hoodi Junction or Graphite Bus stop which is situated roughly about 1km from the college.
- The college also provides bus facilities to the students and staff members.

**Pedestrian Friendly Roads:** GCEM is equipped with Pedestrian-Friendly roads where pedestrians and cyclists can travel safely and freely on the campus. Speed humps are available on the campus road to improve traffic and pedestrian safety.

**Plastic-free campus:**

GCEM is a plastic-free campus with no usage of plastics in the campus.

- Food served:
  - Everyday tea is served in ceramic cups to all on campus.
  - Lunch provided during all celebrations is served in eco-friendly plates and spoons.

**Paperless office:** The College gives emphasis on the paperless office to save carbon emission in printers.

- Reuse of one –side paper printouts is also being done.
- Digital Data and Documentation Cell: Collection of academic and other data as digital documents, Development and maintenance of institutional database through ‘CMIS’ for the purpose of maintaining /enhancing the institutional quality and getting accreditation.
- **Edumegre Software:** Most of the official communications and details are maintained using this software

**Green landscaping with trees and plants:**

The college campus is surrounded by green landscaping, ornamental plants, and trees of various varieties to neutralize the carbon dioxide. The college gives a green serene environment.

**Public Transport - Available**

**Pedestrian Friendly Roads. - - Available**

**Energy conservation**

- The glass windows of the classrooms facilitate the maximal utilization of natural light.

- The traditional lighting systems are replaced with CFL lighting system
- Switching off the electrical equipment when not in use.
- Minimizing the use of the elevator, and encouraging staff and students to use staircases whenever possible.

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

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

**Response:** 0.02

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)

2018-19	2017-18	2016-17	2015-16	2014-15
0.15	0	0	0	0

<b>File Description</b>	<b>Document</b>
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>
Any additional information	<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:** B. At least 6 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:** 0

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

2018-19	2017-18	2016-17	2015-16	2014-15
0	00	0	0	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:** 2

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

2018-19	2017-18	2016-17	2015-16	2014-15
0	1	1	0	0

File Description	Document
Report of the event	<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:** Yes

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

<b>File Description</b>	<b>Document</b>
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

<b>File Description</b>	<b>Document</b>
Any additional information	<a href="#">View Document</a>
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:** 8

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

2018-19	2017-18	2016-17	2015-16	2014-15
3	3	1	1	0

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

- **Independence Day:** It is celebrated annually commemorating the sacrifice of freedom fighters.
- **Republic Day:** It is celebrated every year honoring the date on which the Constitution of India came into effect.
- **Karnataka Rajyotsava ( Karnataka State Festival):**

It is celebrated on 1 November of every year. This was the day in 1956 when all the Kannada language-speaking regions of South India were merged to form the state of Karnataka.

- **Yuva Saptaha : ( Birth Anniversary of Swamy Vivekanandha):**

It is celebrated annually as National Youth Day. Blood donation camp is conducted in this view

- **Constitutional Day (Birth Anniversary of Dr. Ambedkar):**

It is celebrated to commemorate the adoption of the of India.

- **Sadbhavana Diwas (Remembrance of Rajiv Gandhi):**

Celebrated on **August 20** every year, Sadbhavana Diwas commemorates the memory of our late erstwhile Prime Minister, *Rajiv Gandhi*.

- **Teacher's Day :**

The birthday of Dr. Radhakrishnan is celebrated in India as teacher's day on 5th September

- **Education Day:**

Annually observed on 11th November to commemorate the birth anniversary of Maulana Abul Kalam Azad, the first education minister of independent India

- **Engineers Day: (Sir. M Visvesvaraya)**

It is celebrated on 15th September as a tribute to greatest Indian Engineer Sir. M Visvesvaraya to make the young minds to think about the role of engineers in developing India.

- **Martyr's day:** (death anniversary of Mahatma Gandhi 30th January)

Martyr's day is observed to remember the death anniversary of Mahatma Gandhi every year 30th January. 2 minutes silence is kept there in the memory of the Father of Nation, Bapu and another martyr's throughout the country.

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:

#### 1. Financial Functions:

All matters of financial transactions of the college relating receipts and payments are through the valid supporting documents, such receipts and payments are made with the approval of respective authorities. Yearly audits are carried out on all the transactions made on a daily basis. Financial statements are made based on the audited transactions and approved by the management and the auditors and it is filled to the income Tax Department every year.

#### 2. Academic Functions:

GCEM provides complete transparency in terms of academic-related activities in the following areas:

- **Admission:**
  - For admissions to a 4-year BE course, selection of candidates is done on the basis of merit list prepared by the institute based on the **KCET** score.
    - Candidates seeking admission must possess a higher secondary certificate with Physics and Mathematics as compulsory subjects and Chemistry/ Biology/ Biotechnology/Computer Science/ Electronics as one of the optional subjects.
    - Candidates who hold a diploma in Engineering can also apply. The minimum required aggregate is 45% for admission to BE program.
  - Eligible candidates can apply through the forms available at the college admission office.
- **Academic Audit Cell:**
  - Ensuring the VTU Regulation guidelines are implemented in the academic activities of each department.
  - Periodical conduct of Academic Audit in all departments and reporting to Principal & IQAC Coordinator during every semester
  - Maintaining Audit reports for every semester and compliance report
  - Submission of Academic Audit report files during the NAAC/NBA Peer team visit in IQAC.
- The course teachers display question bank in advance students to prepare for exams.
- Evaluation method comprises of internal examinations held progressively during the semester and is designed to check and report the periodic performance of the student.
- All the records and data bank of attendance in internal Examinations, Question papers, valued answer sheets/copies, a summary of marks sheets, are properly maintained by the teachers for academic monitoring/academic audit.
- There is complete transparency in the internal assessment for each assessment method as described below.
- The marking scheme is prepared by every subject teacher before valuation.
- **Class Assessment Test (optional):** Assessment copies are shown to the students. Some questions have specific remarks of the valuer for awarding fewer marks.

#### INTERNAL ASSESSMENTS:

Valuation is done by the respective subject teacher within two days through a centralized valuation system. Answer booklets are shown to all the students and answers are also discussed with the students. Some questions have specific remarks of the valuer regarding the deduction of marks.

- **Internal Marks:** Internal marks are finalized in a fair and unbiased manner, where the marks are confirmed only with the student's consent on the front page of the blue book. The consolidated marks are displayed in the notice board

**Practical Examination:** Evaluation is done with transparency based on different parameters like Teachers Assessment, Practical Records, Performance, and Viva-Voce.

**Assignments:** Assignments questions are discussed with students. The students submit three assignments

## 7.2 Best Practices

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

**Response:**

**Best practice - 1**

**Title of the Practice: Mentoring System for Students**

**Objectives:**

1. To support the student's personal and academic needs.
2. To help the students to identify their strengths and work on it.
3. To provide constructive criticism encouragement and praise when needed

**The Context:**

The adolescent students face different stress during the college days. It is obvious that there is an increased level of depression, dropouts and sometimes leads to suicides also. It is highly impossible for the teacher in the class to give personal attention to the students considering the student-teacher ratio in classrooms and meet out there personal stress-related problems. One solution, therefore, is a 'Mentor' who can form the bond with students in the true sense. Mentoring is required for students to achieve emotional stability and to promote clarity in thinking and decision making for overall progress.

**Practice:**

The mentoring system is systematically carried out in the institution. The practice is carried out as follows:

1. The first-year students are not allotted to their respective departments rather taken care of by the Basic Science department, they are allotted to different sections where students from various

departments are present.

2. A class teacher is allotted for each section and three mentors are allotted, including the class teacher. Each mentor is allotted a maximum of 20 students.
3. The Mentor meets the mentee once a week. The Mentoring hour is scheduled in the time table. It is carried out for an hour.
4. The first mentoring session is where the mentor gets the personal and academic details of every student and documents them in a prescribed format and files it up. During this session, the mentor also gets additional information like the mentees strength, weakness, interests, dislikes, etc., to get accustomed to his/her mentee and create a strong bond with the mentee.
5. In the forthcoming session, the Mentor meets the mentee personally during the respective slots
6. Once the students have completed the first year and move to the respective departments, the file is transferred to the department. Mentors are assigned in the ratio 1:20, and these students are under the same mentor until the completion of the course.

The mentor plays a vital role during the course of study of the student. The mentor discusses different personal and academic-related issues, creates a healthy bonding; creating trust and confidence with the mentee so that they will open out their problems. The mentor will guide, motivate, encourage the student in times of need. They even help them make the right decisions, inculcate ethics and develop their interpersonal skills.

The mentor also acts as a point of contact with the parent/ guardian. They inform the parents regarding the attendance shortage, discuss the performance in exams and other related matters in a time of need.

#### **Evidence of Success:**

The evidence of success can be confirmed from the improvement in attendance and the interest they show towards the academic-related activities after the mentoring sessions.

#### **Problems Encountered and Resources Required:**

The problems identified while implementation of the mentoring system can be listed as follows:

- Students don't open out with the mentors, as providing solutions is not always feasible.
- Some students don't have the integrity and they give false information in the mentoring sessions
- The academic timings sometimes clash with the mentoring hours and sometimes priority is not given for the same.

The resources requirements while implementation of the mentoring system can be listed as follows:

- Committed faculty, who are compassionate and have the burden to help the students with a willing heart.
- Quality time to do the mentoring efficiently and effectively

#### **Best practice - 2**

**Title: Induction Program for First-year students**

### **Objectives:**

1. To encourage newly joined students to get accustomed to campus life and the program.
2. To mend the all-round development of the student.
3. To bridge the gap between the pre-university and the university requirement.

### **The Context:**

The freshly admitted students of Engineering face many challenges in adapting to the new environment and academic schedule. To help them cope up with the needs of the curriculum, it is essential to develop a sound mind, healthy interpersonal relationship and all-round personality development. This helps the student accustomed to the new environment with sincere dedication. This initiative, of organizing induction programs, addresses the need of first-year students who are away from their parents and home town.

### **The Practice:**

Various events were conducted to eliminate the fear factor in the first-year students and induce self-discipline and human ethics among the students. Sessions were allotted for meditation, sports, personality development, aptitude training, self-discipline, college trip, Movie time, etc.

The following are the events conducted for the academic year 2018 – 19 and a detailed report of the same is enclosed.

1. Introduction to college
2. Yoga, Art of living
3. Personality development
  1. Leadership qualities
  2. Time Management
  3. Fear & Crisis Management
4. Self-discipline, focusing on short term goals, long term goals
5. Human values (patriotism, honesty, privilege & confidence)
6. Awareness of moral & ethical values
7. Talk on general aptitude, General knowledge and general aptitude test, Quiz, and puzzles
8. Visit the sports complex and practice on sports and games
9. Solid waste management – practice and creative arts.
10. Movie Time

### **Evidence of Success:**

The initiative taken was indeed a success, this was quite evident from the feedbacks collected from the students after every session, and the following observations were made:

- Students were motivated to attend class regularly with interest.
- The faculty members could infer that the student learning participation level had highly improved.
- It was observed students were having clarity in thought patterns.
- Students from rural backgrounds had opened up and come out of their fears.

### **Problems Encountered and Resources Required:**

The problems identified while implementation of the induction program can be listed as follows:

- The academic timings were affected while conduction the program for 21 days.

The resources requirements while implementation of the induction program can be listed as follows:

- The trained professionals in their respective expertise as resource personnel.
- The academic schedule should have provisions to accommodate the program schedule.

### **Best practice - 3**

**Title: Enhance learning of 'Mathematics' in Technical Education for first and second-year students**

#### **Objective :**

- Encourage students to develop a deeper understanding of higher-level mathematics concepts which will enhance further perusal of their respective program.
- Install healthy competition amongst students to outperform others.
- To help the students to overcome the fear of performance in mathematics
- To stamp out a mental obstruction of learning mathematics.

#### **The Context:**

In the state, the curriculum of the PU Board is flexible to omit the important concept of differentiation and integration in mathematics for clearing the PU examinations. Based on this, input to engineering institutes is witnessing students with a lack of mathematical concepts which trend of enrolment of students from the first year to higher semesters. It was observed that one such reason for the decline is due to the propagation of other courses that have limited mathematics structure in the program. GCEM has identified that in its growing years and finds its deemed responsibility, to prepare and send many students to these higher education institutes which would bring down the rate of dropouts after the first year of the program. We deliver service to prepare our students with the competence to handle any numerical challenges. Primarily a no formal approach of motivation was practiced by encouraging students through awarding them inside the classroom. By observing the improvement of their competence to handle mathematics, the Department of mathematics decided to appreciate the excelling students who top mathematics subjects every semester through trophies and certification of excellence.

#### **The practice:**

Department of mathematics makes the best effort to bring the students out of the obstacles faced in mathematics. At the very beginning of the semester, the students are informed about the incentives provided by the department for best-performing students which inculcates a spirit of competitive attitude amongst the students.

The students are first identified based on their mathematical ability through testing their basics by oral

tests in maths during the first few days of the course. Applications related to the topics in the field of engineering are delivered during the course before introducing a topic. Students are also tested through systematic analysis of their internal assessments. Professors of mathematics are very well aware of the challenges faced by students, so the process of evaluation is very well systematic by identifying and pinpointing the mistake made by the students during the course. Tutorials are conducted even after the college hours as per the interest of the students. Question Bank and assignments are made available to all the students so that every student has the same edge to compete. Learning support is provided by academic counseling by the individual teachers and the head of the department.

Trophy and certificate are provided to students securing highest marks in each of the semesters. This would be distributed during the inauguration day of the first years in the month of August for the results that are declared for even semester and during Graduation day to boost the pride of the recipient students.

### **Evidence of Success**

- Increase in the number of students securing high marks.
- Sometimes, the prize is shared by three students with the same highest score.
- Increase in the quality of results (number of distinctions, number of first classes, etc.)

### **Problems encountered and Resources required**

The practice was informally initiated in the year 2013. Since then the number of high scoring students has been on the rise. The expenses are borne annually by the staff of the department of mathematics in addition to the proceeds of GCEM management.

## **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:**

GCEM focuses on technology, research and academic excellence that aim to add values to lives. The institute stresses on a deeper understanding of relevance to the needs of the future. Our students are taught to blend science together with humaneness.

**The distinctiveness of the technical institution** lies in the industrial experience; students are provided during their course of study in and around the campus. The institution avails its credits of industrial infrastructure from the management's diversified industrial experiences to equip the students.

Besides the industrial exposure it provides, the institution adds to its credits the location and diverse culture it holds. This can be summarized as the following:

1. Industrial Experience and Infrastructure
2. Location Benefits
3. Diverse Culture

## 1. Industrial Experience and Infrastructure:

The institution is managed and guided by the visionary Mr. C. Gopalan, Chairman and Managing Director of “Gopalan Enterprise”, the pioneers in the field of the construction industry since 1984 and diversified into various spectrums of Education, Entertainment, Retail, Commercial Spaces, and Aerospace.

The students are permitted to avail of the following industrial infrastructure of the management.

- **Construction Company:** The Construction Company by Gopalan Enterprises, is established for the last three decades. Their experience in constructing more than 6400 residential units including row houses and luxury apartments, 34 completed projects and 4 under construction make the company leader in the domain. <https://www.gopalanenterprises.com/>
- **Aerospace Industry:** Gopalan Aerospace, which is situated in Hoskote Industrial Area over an area of 10.5 acres and 100,000 square feet of advanced facilities and equipped with the latest infrastructure. It develops Aerospace components and composites design, development, and manufacturing company. Their expertise lies in Precision Engineering, Aerospace Technology, and Heavy Engineering. <https://www.gopalan aerospace.com/>

### Benefits to Students:

The students are allowed to use the above facilities, to have wide industrial exposure in the construction company and the aerospace industry.

- The students are taken for industrial visits.
- They are permitted to take up internships in these firms, which gives them an added advantage.
- The students from the institutions are given more priority during placement in these firms.

### 2. Location Benefits:

The college is situated in Hoodi Bangalore, referred to as the "Silicon Valley of India" or "IT capital of India". Our Premises is close to the vicinity of ITPL. Our college is located on the road that links the IT hub of Bangalore with the Hoodi Industrial Area.

Students must cross the number of companies like production, manufacturing, construction, services and IT through any direction to reach the college daily. This, in turn, inspires them to reach places in their carrier. This also enables the students to explore the various dimensions of the industry and equip themselves. The students can easily look for internships.

Being located in a link road college is well placed in a less polluted area of noise additionally our campus is well structured and maintained with greens which are an added factor for pleasant academic processes.

### 3. Diverse Culture:

The students and teachers of the institution are from a diverse cultural and linguistic background as the college is situated in Bangalore which is a Metro. Moreover, this is evident from the fact that **56%** of the teaching faculty are from other states of India.

The positive effect of diversity enables students to work with people from other cultural backgrounds and challenges the views they are accustomed to. This leads to greater awareness of understanding and acceptance of different beliefs and customs.

Cultural diversity enriches the educational experiences as a culturally diverse classroom and social interactions provide students the opportunity to learn from people with different backgrounds and upbringings, leading to increased innovation and collaboration.

Through a diverse campus, students are presented with daily opportunities to interact with people of various backgrounds, which enables them to learn to communicate more effectively and often differently than they are previously accustomed to.

The students not only benefit from their peers but, they also get the chance to see and experience various leadership styles from faculty, staff, and administrators.

The real world is always diverse, thus a diverse college experience encourages students to think globally.

Diversity in education, especially in college campuses, improves intellectual engagement, self-motivation, cultural engagement and academic skills like critical thinking, problem-solving.

## 5. CONCLUSION

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### Additional Information :

- GCEM comes under Gopalan Colleges, headed by Mr. C. Gopalan, an architect, with the objective of developing and constructing residential apartments in Bangalore. Students from the Department of Civil Engineering are recruited by Gopalan Enterprises promoters in Building and Architects.
- Students who secure above 9 (CGPA) are encouraged to get University Rank by honoring them in orientation day function.
- Vinaya Shree, a student of the Department of Civil Engineering scored 9th rank under VTU in the year 2015 - 16. Aishwarya KS student of Department of Electronics and Communication engineering secured 6th rank in 2018-19 June/July University examination.
- Student's forum in the departments conducts workshops, seminars, guest lecture and competitions at regular intervals to bring experts from industry/institute for updating the technology.
- Research activities are strengthening in collaboration with Baroda Innovation Technologies. Institute has established the 'Institution Innovation Council (IIC)' for the academic year 2019- 20.
- 'Techblaze' is a technical fest organized at the national level for the benefit of students across the country.
- Faculty members pursuing Ph.D. are encouraged by providing funding for presenting their research at national/international conferences.

### Concluding Remarks :

Gopalan College of Engineering and Technology was established in the year 2010 under Gopalan Group of Institutions which comprises schools, PU College, Commerce College, Skill Academy, and School of Architecture. Gopalan College of Engineering and Management focuses on technology, research and academic excellence that aim to add value to lives today. The institute stresses on a deeper understanding of and relevance to the needs of the future. The vision of the institute is to centre of excellence in education and research by continuous innovation. The institution maintains transparency and involves all the stakeholders in policymaking. Students and faculty maintain an excellent rapport resulting in the success of the teaching-learning process.

A thought of accreditation arose, in a run of the decade; this junction will be appropriate to create insight about us to enhance better growth. A collective decision is made to take the first step to NAAC which is initiated the process by decentralizing the criteria after educating our staff members with the NAAC manual and processes. A loyal commitment of faculty in the first meeting held was exhibited which boosted this stage.

Firstly, IQAC was formed in May 2019 with the approval of the Governing council of GCEM. Internal Quality Assurance Cell functions with the members from Management, Industry, Alumni, members from Institution, Administration, etc. to assure quality in all aspects. Various committees are formed under IQAC such as Academic Audit, Digital Data & Documentation Cell, College Information & Management, Feedback Collection and Analysis, Anti-Ragging, Alumni Association, Women Empowerment, Internal Compliance Committee, Grievance Redressal Committee, Institute Interaction Cell, E-content development cell, Disciplinary Committee, Extension and Outreach Committee, Capacity Enhancement & Development Cell to develop the system for maintaining the quality culture in academics and administration activities.

Criterion wise co-ordinators were identified to collect the necessary data and write a description with the support extended by all faculty members. The self-study of the institution is done by the overall support of management, Principal and all stakeholders towards the improvising quality of the institution. **“Quality is not an act, it is a habit”- Aristotle**

NAAC

## 6.ANNEXURE

### 1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification																				
1.1.3	<p>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</p> <p>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</p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>5</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>00</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table> <p>Remark : The additional input provided by the HEI is not considered, neither for AY 2018-19 nor for AY 2017-18. These are participation in a feedback workshop and not participation of the full time teachers in any academic body of the Universities/ Autonomous Colleges/ Other Colleges. Only teachers participating in various bodies of the Institution, such as BoS and Academic Council year-wise during the last five years are eligible.</p>	2018-19	2017-18	2016-17	2015-16	2014-15	5	5	0	0	0	2018-19	2017-18	2016-17	2015-16	2014-15	00	0	0	0	0
2018-19	2017-18	2016-17	2015-16	2014-15																	
5	5	0	0	0																	
2018-19	2017-18	2016-17	2015-16	2014-15																	
00	0	0	0	0																	
1.2.1	<p>Percentage of new Courses introduced out of the total number of courses across all Programs offered during last five years</p> <p>1.2.1.1. How many new courses are introduced within the last five years</p> <p>Answer before DVV Verification : 76</p> <p>Answer after DVV Verification: 60</p>																				
1.3.2	<p>Number of value added courses imparting transferable and life skills offered during the last five years</p> <p>1.3.2.1. Number of value-added courses imparting transferable and life skills offered during the last five years</p> <p>Answer before DVV Verification : 10</p> <p>Answer after DVV Verification: 8</p>																				
2.1.3	<p>Average percentage of seats filled against seats reserved for various categories as per applicable reservation policy during the last five years</p> <p>2.1.3.1. Number of actual students admitted from the reserved categories year-wise during the last five years</p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	2018-19	2017-18	2016-17	2015-16	2014-15															
2018-19	2017-18	2016-17	2015-16	2014-15																	

149	158	193	193	189
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Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
61	62	62	66	52

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
15	6	2	3	3

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
12	6	2	3	3

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
0	1	0	0	1

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
0	1	0	0	1

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
5	8	4	3	0

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
5	8	4	3	0

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

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

Answer before DVV Verification : 5

Answer after DVV Verification: 3

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

Answer before DVV Verification : 10

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
6	2	1	0	3

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
6	1	0	0	2

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
643	150	100	0	110

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
154	50	100	0	70

3.5.2	<p>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)</p> <p>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)</p> <p>Answer before DVV Verification:</p> <table border="1" data-bbox="304 465 1046 600"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>7</td> <td>0</td> <td>1</td> <td>1</td> <td>0</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="304 678 1046 813"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>00</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table> <p>Remark : The HEI given weblink is not working. In the absence of the MoU's the data cannot be verified (absence of supporting documents) Time 27/02/2020 11.10 am However based on the attached Excel data the following is analyzed. MoU with Live wire is also in 3.5.1. Global tech and CMS is 04 months and 02 months. MoU with Skyfi Education Labs Pvt Ltd is for Project-Based Training Program on surveying while with SLS TTIC,Pvt Ltd and Green Ready Made Steel it is for Internship. Training and internship are part of 3.5.1. Only functional MoUs with institutions of national, international importance, other universities, industries, corporate houses etc. year-wise during the last five years can be considered in this Metric.</p>	2018-19	2017-18	2016-17	2015-16	2014-15	7	0	1	1	0	2018-19	2017-18	2016-17	2015-16	2014-15	00	0	0	0	0
2018-19	2017-18	2016-17	2015-16	2014-15																	
7	0	1	1	0																	
2018-19	2017-18	2016-17	2015-16	2014-15																	
00	0	0	0	0																	
4.1.4	<p>Average percentage of budget allocation, excluding salary for infrastructure augmentation during the last five years.</p> <p>4.1.4.1. Budget allocation for infrastructure augmentation, excluding salary year-wise during the last five years (INR in Lakhs)</p> <p>Answer before DVV Verification:</p> <table border="1" data-bbox="304 1451 1046 1585"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>541.97</td> <td>210.28</td> <td>190.58</td> <td>22.56</td> <td>147.32</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="304 1664 1046 1798"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>9.07</td> <td>20.28</td> <td>2.65</td> <td>3.52</td> <td>4.38</td> </tr> </tbody> </table>	2018-19	2017-18	2016-17	2015-16	2014-15	541.97	210.28	190.58	22.56	147.32	2018-19	2017-18	2016-17	2015-16	2014-15	9.07	20.28	2.65	3.52	4.38
2018-19	2017-18	2016-17	2015-16	2014-15																	
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2018-19	2017-18	2016-17	2015-16	2014-15																	
9.07	20.28	2.65	3.52	4.38																	
4.2.4	<p>Average annual expenditure for purchase of books and journals during the last five years (INR in Lakhs)</p> <p>4.2.4.1. Annual expenditure for purchase of books and journals year-wise during the last five years (INR in Lakhs)</p> <p>Answer before DVV Verification:</p>																				

2018-19	2017-18	2016-17	2015-16	2014-15
6.83	3.65	3.56	2.17	11.77

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
5.7	2.7	1.7	1.1	2.4

4.2.6	<p>Percentage per day usage of library by teachers and students</p> <p>4.2.6.1. Average number of teachers and students using library per day over last one year            Answer before DVV Verification : 75            Answer after DVV Verification: 15</p> <p>Remark : The HEI input updated after checking the register entries of requested dates by DVV</p>																				
5.1.2	<p>Average percentage of students benefited by scholarships, freeships, etc. provided by the institution besides government schemes during the last five years</p> <p>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            Answer before DVV Verification:</p> <table border="1" data-bbox="304 1093 1046 1227"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>31</td> <td>20</td> <td>25</td> <td>7</td> <td>8</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="304 1305 1046 1440"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>31</td> <td>20</td> <td>25</td> <td>7</td> <td>8</td> </tr> </tbody> </table>	2018-19	2017-18	2016-17	2015-16	2014-15	31	20	25	7	8	2018-19	2017-18	2016-17	2015-16	2014-15	31	20	25	7	8
2018-19	2017-18	2016-17	2015-16	2014-15																	
31	20	25	7	8																	
2018-19	2017-18	2016-17	2015-16	2014-15																	
31	20	25	7	8																	
5.3.1	<p>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.</p> <p>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            Answer before DVV Verification:</p> <table border="1" data-bbox="304 1758 1046 1892"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1</td> <td>2</td> <td>0</td> <td>0</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="304 1971 1046 2083"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	2018-19	2017-18	2016-17	2015-16	2014-15	1	1	2	0	0	2018-19	2017-18	2016-17	2015-16	2014-15					
2018-19	2017-18	2016-17	2015-16	2014-15																	
1	1	2	0	0																	
2018-19	2017-18	2016-17	2015-16	2014-15																	

0	1	0	0	0
---	---	---	---	---

Remark : The following have been considered `1. 2017-18 Ms. Pradeep Kumar Deepika

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

Answer before DVV Verification : A. All 5 of the above

Answer After DVV Verification: B. Any 4 of the above

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
6	0	0	0	0

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
4	0	0	0	0

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
40	33	4	0	3

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
21	11	1	0	1

6.5.4	<p>Quality assurance initiatives of the institution include:</p> <ol style="list-style-type: none"> <li>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</li> <li>2. Academic Administrative Audit (AAA) and initiation of follow up action</li> <li>3. Participation in NIRF</li> <li>4. ISO Certification</li> <li>5. NBA or any other quality audit</li> </ol> <p>Answer before DVV Verification : C. Any 2 of the above Answer After DVV Verification: D. Any 1 of the above</p>																				
7.1.1	<p>Number of gender equity promotion programs organized by the institution during the last five years</p> <p>7.1.1.1. Number of gender equity promotion programs organized by the institution year-wise during the last five years</p> <p>Answer before DVV Verification:</p> <table border="1" data-bbox="304 1066 1046 1200"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>2</td> <td>1</td> <td>1</td> <td>1</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="304 1279 1046 1413"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>1</td> <td>1</td> <td>0</td> <td>1</td> </tr> </tbody> </table>	2018-19	2017-18	2016-17	2015-16	2014-15	0	2	1	1	1	2018-19	2017-18	2016-17	2015-16	2014-15	0	1	1	0	1
2018-19	2017-18	2016-17	2015-16	2014-15																	
0	2	1	1	1																	
2018-19	2017-18	2016-17	2015-16	2014-15																	
0	1	1	0	1																	
7.1.3	<p>Alternate Energy initiatives such as:</p> <ol style="list-style-type: none"> <li>1. Percentage of annual power requirement of the Institution met by the renewable energy sources</li> </ol> <p>7.1.3.1. Annual power requirement met by the renewable energy sources (in KWH) Answer before DVV Verification : 60000 Answer after DVV Verification: 39480</p> <p>7.1.3.2. Total annual power requirement (in KWH) Answer before DVV Verification : 177193 Answer after DVV Verification: 300167</p> <p>Remark : The HEI input updated as per attached Energy audit report</p>																				

7.1.4	<p>Percentage of annual lighting power requirements met through LED bulbs</p> <p>7.1.4.1. Annual lighting power requirement met through LED bulbs (in KWH)          Answer before DVV Verification : 2310          Answer after DVV Verification: 8468</p> <p>7.1.4.2. Annual lighting power requirement (in KWH)          Answer before DVV Verification : 92400          Answer after DVV Verification: 53545</p> <p>Remark : The HEI input updated as per attached supporting documents</p>																				
7.1.8	<p>Average percentage expenditure on green initiatives and waste management excluding salary component during the last five years</p> <p>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)          Answer before DVV Verification:</p> <table border="1" data-bbox="306 831 1046 965"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>3.39</td> <td>3.24</td> <td>1.62</td> <td>0</td> <td>0</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="306 1043 1046 1178"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>0.15</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table>	2018-19	2017-18	2016-17	2015-16	2014-15	3.39	3.24	1.62	0	0	2018-19	2017-18	2016-17	2015-16	2014-15	0.15	0	0	0	0
2018-19	2017-18	2016-17	2015-16	2014-15																	
3.39	3.24	1.62	0	0																	
2018-19	2017-18	2016-17	2015-16	2014-15																	
0.15	0	0	0	0																	
7.1.9	<p>Differently abled (Divyangjan) Friendliness Resources available in the institution:</p> <ol style="list-style-type: none"> <li>1. Physical facilities</li> <li>2. Provision for lift</li> <li>3. Ramp / Rails</li> <li>4. Braille Software/facilities</li> <li>5. Rest Rooms</li> <li>6. Scribes for examination</li> <li>7. Special skill development for differently abled students</li> <li>8. Any other similar facility (Specify)</li> </ol> <p>Answer before DVV Verification : A. 7 and more of the above          Answer After DVV Verification: B. At least 6 of the above</p>																				
7.1.10	<p>Number of Specific initiatives to address locational advantages and disadvantages during the last five years</p> <p>7.1.10.1. Number of specific initiatives to address locational advantages and disadvantages year-wise during the last five years          Answer before DVV Verification:</p> <table border="1" data-bbox="306 1895 1046 2029"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>1</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table>	2018-19	2017-18	2016-17	2015-16	2014-15	2	1	0	0	0										
2018-19	2017-18	2016-17	2015-16	2014-15																	
2	1	0	0	0																	

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
0	00	0	0	0

Remark : As per the attached supporting documents all the activities were done by students inside the HEI premises and no Documents proves its involvement with community to address locational advantages and disadvantages

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
1	5	1	0	0

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
0	1	1	0	0

## 2.Extended Profile Deviations

ID	Extended Questions																				
1.1	Number of courses offered by the institution across all programs during the last five years Answer before DVV Verification : 304 Answer after DVV Verification : 247																				
2.1	Number of students year-wise during the last five years  Answer before DVV Verification: <table border="1"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>643</td> <td>702</td> <td>690</td> <td>614</td> <td>624</td> </tr> </tbody> </table> Answer After DVV Verification: <table border="1"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>643</td> <td>702</td> <td>690</td> <td>614</td> <td>624</td> </tr> </tbody> </table>	2018-19	2017-18	2016-17	2015-16	2014-15	643	702	690	614	624	2018-19	2017-18	2016-17	2015-16	2014-15	643	702	690	614	624
2018-19	2017-18	2016-17	2015-16	2014-15																	
643	702	690	614	624																	
2018-19	2017-18	2016-17	2015-16	2014-15																	
643	702	690	614	624																	
2.2	Number of seats earmarked for reserved category as per GOI/State Govt rule year-wise during the last five years  Answer before DVV Verification:																				

2018-19	2017-18	2016-17	2015-16	2014-15
240	240	240	240	240

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
63	63	64	66	65

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
177	188	151	118	122

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
148	163	154	123	123

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
54	54	61	61	61

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
57	50	48	48	49

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
929.08	408.59	343.16	174.39	311.88

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
170	244	288	214	181