

### YEARLY STATUS REPORT - 2020-2021

Part A		
Data of the Institution		
1.Name of the Institution	GEETHANJALI COLLEGE OF ENGINEERING AND TECHNOLOGY	
Name of the Head of the institution	Dr. S. Udaya Kumar	
• Designation	Principal	
Does the institution function from its own campus?	Yes	
Phone No. of the Principal	+91 9866308257	
Alternate phone No.	9912744988	
Mobile No. (Principal)	+91 9866308257	
• Registered e-mail ID (Principal)	uksusarla@gmail.com	
• Address	Cheeryal (Village), Keesara (Mandal), Medchal (Dist)	
• City/Town	Hyderabad	
• State/UT	Telangana	
• Pin Code	501301	
2.Institutional status		
<ul> <li>Autonomous Status (Provide the date of conferment of Autonomy)</li> </ul>	19/04/2016	
Type of Institution	Co-education	
• Location	Rural	

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• Financial Status	Self-financing
Name of the IQAC Co-ordinator/Director	Dr. B.Leelaram Prakash
• Phone No.	+91 9346314538
Mobile No:	9346314538
• IQAC e-mail ID	iqac_gcet@gcet.edu.in
3.Website address (Web link of the AQAR (Previous Academic Year)	http://www.geethanjaliinstitution s.com/engineering/img/downloads/A QAR 2019-20.pdf
4. Was the Academic Calendar prepared for that year?	Yes
• if yes, whether it is uploaded in the Institutional website Web link:	http://www.geethanjaliinstitutions.com/engineering/academic-calendar.html

#### **5.**Accreditation Details

Cycle	Grade	CGPA	Year of Accreditation	Validity from	Validity to
Cycle 1	A	3.36	2017	09/06/2017	08/06/2022

#### 6.Date of Establishment of IQAC 11/06/2012

7.Provide the list of Special Status conferred by Central and/or State Government on the Institution/Department/Faculty/School (UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC, etc.)?

Institution/ Depart ment/Faculty/Sch ool	Scheme	Funding Agency	Year of Award with Duration	Amount
Teja Educational Society (GCET)	Scientific and Industrial Research Organization	Department of Scientific and Industrial Research (DSIR)	21/09/2020	0
GCET-ECE	AICTE-MODROB	AICTE	19/07/2020	352157
PI: Udaya Kumar Susarla, Co- PI: OVPR Siva Kumar	-	DRDO	02/04/2018	458100000
Dr. Anil Kumar Puppala	TEQIP	JNTUH	22/07/2019	250000
Dr A Bharathi	TEQIP	JNTUH	22/07/2019	270000
Dr P Sudhakar (CO- PI)	TEQIP	JNTUH	22/07/2019	299000
Dr K Shashikala	TEQIP	JNTUH	22/07/2019	250000
Dr N. Subhadra	TEQIP	TEQIP	22/07/2019	200000
Dr. Ch. Ramesh Babu	TEQIP	TEQIP	22/07/2019	295000

#### 8.Provide details regarding the composition of the IQAC:

Upload the latest notification regarding the composition of the IQAC by the HEI	View File	
9.No. of IQAC meetings held during the year	4	
Were the minutes of IQAC meeting(s) and	Yes	

compliance to the decisions taken uploaded on the institutional website?	
If No, please upload the minutes of the meeting(s) and Action Taken Report	No File Uploaded
10.Did IQAC receive funding from any funding agency to support its activities during the year?	No
If yes, mention the amount	

#### 11. Significant contributions made by IQAC during the current year (maximum five bullets)

• Sensitized all stakeholders towards quality teaching learning process and research and their sustenance through awareness programs. • A concerted effort towards sustaining and improving quality in all activities of the college resulted in the college securing NIRF rank in the band of 251-300 • A stupendous effort has been made through continuous mentoring of students and monitoring of training and placements program has resulted in significant improvement in placements. • Organized webinars on IPR with an emphasis on quality research resulted in publications in reputed journals and patents. • Facilitated o Training on emerging areas, namely, AIML, IoT, Data Sciences etc., to students and faculty, o Introduction of Design Thinking course in the undergraduate curriculum, o Establishment of laboratories in emerging areas. o Students to take-up innovative projects resulting in a few prototypes/ Apps which helped the institute to get recognized in the band "Excellent" by ARIIA of MHRD. o Conduct of awareness program on "Human values and professional ethics".

12.Plan of action chalked out by IQAC at the beginning of the academic year towards quality enhancement and the outcome achieved by the end of the academic year:

Plan of Action	Achievements/Outcomes
To organize webinars on IPR with an emphasis on quality research	Improvement in quality of publications in reputed journals and published good number of patents.
To sustain and further improve quality in all activities of the college through a concerted effort	College secured NIRF rank in the band of 251-300
Organization of training programs, continuous monitoring of the same and regular mentoring towards improved placements	Increased number of placement offers resulting in more number of individual student placements with higher median salary
Facilitation of Training in emerging areas, namely, AIML, IoT, Data Sciences etc., to students and faculty, introduction of Design Thinking course in the undergraduate curriculum, establishment of laboratories in emerging areas, encouraging students to take-up innovative projects	Resulted in a few prototypes/ Apps developed by students which facilitated the institute in getting recognition in the band "Excellent" by ARIIA of MHRD.
To sensitize students on human values and professional ethics through organization of webinars.	Increased participation of students in NSS activities such as tree plantation, Swachh Bharath, blood donation camps, generated empathy resulting in providing service to old age homes, nearby schools and local community
3.Was the AQAR placed before the statutory ody?	No

Name of the statutory body	Date of meeting(s)	
Governing Body- will be placed in next Governing body meeting tentatively scheduled in Feb 2022	19/02/2022	
14. Was the institutional data submitted to AISHE ?	Yes	
• Year		
Year	Date of Submission	
31/05/2021	18/01/2022	
Extende	l Profile	
1.Programme		
1.1	12	
Number of programmes offered during the year:		
2.Student		
2.1	3871	
Total number of students during the year:		
2.2	932	
Number of outgoing / final year students during the	year:	
2.3	3871	
Number of students who appeared for the examinations conducted by the institution during the year:		
3.Academic	ı	
3.1	504	
Number of courses in all programmes during the year	ar:	
3.2	287	
Number of full-time teachers during the year:		

3.3	287
Number of sanctioned posts for the year:	
4.Institution	
4.1	364
Number of seats earmarked for reserved categories as per GOI/State Government during the year:	
4.2	70
Total number of Classrooms and Seminar halls	
4.3	1818
Total number of computers on campus for academic purposes	
4.4	2182.86
Total expenditure, excluding salary, during the year (INR in Lakhs):	

#### Part B

#### **CURRICULAR ASPECTS**

#### 1.1 - Curriculum Design and Development

1.1.1 - Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which are reflected in Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) of the various Programmes offered by the Institution.

After achieving autonomous status, the Governing Body of the college advised the college to design its own curriculum. Towards this end, Academic Council (AC) of the college was constituted as per norms of the UGC, which in turn constituted Board of Studies (BoS) of each department as per norms of UGC, which perused the existing curriculum of the affiliating university, its guidelines and academic regulations along with those of other reputed institutions including a few well known universities abroad, keeping in view, the main frame of the program structure and the syllabi within the framework of the norms stipulated by UGC and AICTE.

While preparing curriculum and subsequent revisions, each BoS considered the vision and mission of the college along with the respective department's vision and mission, then the same was put up

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before the College Academic Council. Their inputs were taken for further revision, as needed, so that the institutional vision and mission are reflected in each program offered by the college.

BoS took inputs from all stakeholders, namely, industry, R&D establishments, members of professional bodies, alumni, faculty of the college, government and community.

Based on the Vision and Mission of the college, respective departments with their already established vision and mission, proposed their Program Educational Objectives (PEOs), Program Specific Outcomes (PSOs), Program Outcomes (POs) which are generic, given by NBA.

Subsequently, towards Curriculum Design, each department adopted the following steps:

Identified the context of the program

Prepared PO-PEO matrix to ensure POs facilitate realization of PEOs.

Selected the number of credits for the program based on AICTE and UGC norms, and decided distribution of Credits

Identified the courses to meet the stated POs and PSOs

Wrote the PO-CO (Course Outcome) matrix

Defined assessment processes

- The curriculum was designed to facilitate students obtain liberal education, which has the potential to broaden their perspective and transform the world.
- Curriculum design was based on Outcome Based Education –
   Choice Based Credit System (of course with limitations)

Salient features of the curriculum

- Liberal and holistic education potential to broaden students' perspective and transform the world. The curriculum offers various designated courses namely,
- 1. Core: Basic Sciences, Engineering Sciences, Humanities and Social Sciences and Engineering.

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- 2. Electives: Soft Core with a lab component, Professional, Open Electives (Including Foreign Languages)
- 3. Employability Skills
- 4. Mandatory courses, including Environmental studies, Human Values and Professional Ethics

All the above courses facilitate student with liberal and holistic education: aimed at promoting employability, value education and citizenship roles.

- Experimental learning is given due weightage
- Each semester Five theory and Three lab, except in two semesters out of Eight Semesters
- Project work is given due weightage
- The introduction of Open Elective courses along with Foreign Language promotes the philosophy of liberal education.
- Academic flexibility is maintained through a wide range of courses offered across departments.

Inputs from industry, R&D establishments, professional bodies, government and community have facilitated adequate relevance to the local, national, regional and global developmental needs.

File Description	Documents
Upload additional information, if any	<u>View File</u>
Link for additional information	https://docs.google.com/document/d/1rmxhkeQS 7rnD6tjnB07G7ziocrIgm2Hs/edit?usp=sharing&ou id=105062712823366765579&rtpof=true&sd=true

#### 1.1.2 - Number of Programmes where syllabus revision was carried out during the year

80

File Description	Documents
Minutes of relevant Academic Council/BOS meeting	<u>View File</u>
Details of syllabus revision during the year	<u>View File</u>
Any additional information	No File Uploaded

#### 1.1.3 - Number of courses focusing on employability/entrepreneurship/ skill development

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#### offered by the Institution during the year

#### 204

File Description	Documents
Curriculum / Syllabus of such courses	<u>View File</u>
Minutes of the Boards of Studies/ Academic Council meetings with approval for these courses	<u>View File</u>
MoUs with relevant organizations for these courses, if any	<u>View File</u>
Any additional information	<u>View File</u>

#### 1.2 - Academic Flexibility

#### 1.2.1 - Number of new courses introduced across all programmes offered during the year

#### 127

File Description	Documents
Minutes of relevant Academic Council/BoS meetings	<u>View File</u>
Any additional information	No File Uploaded
Institutional data in prescribed format (Data Template)	<u>View File</u>

### ${\bf 1.2.2 - Number\ of\ Programmes\ offered\ through\ Choice\ Based\ Credit\ System\ (CBCS)/Elective\ Course\ System}$

12

File Description	Documents
Minutes of relevant Academic Council/BoS meetings	<u>View File</u>
Any additional information	No File Uploaded
List of Add on /Certificate programs (Data Template)	<u>View File</u>

#### 1.3 - Curriculum Enrichment

1.3.1 - Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human

Values, Environment and Sustainability, and Human Values into the curriculum

Human Values and Professional Ethics

We believe that after our students graduate and take up their profession; they have a responsibility to their Profession and Organization as we strongly feel that as a employer looks for a set of skills, knowledge, inputs and attitude in a person that they employ. In this regard, enough care is taken to infuse positive attitude in the Graduate by giving inputs which, of course, are not course related, but touch human life at large, which is ensured by incorporating the course titled "Human Values and Professional Ethics". This facilitates development of a Holistic perspective among students towards life, profession and happiness, based on the right understanding of the purpose of Human existence. Such a holistic perspective forms the basis of Value based living in a natural way.

Students are enlightened on Professional Ethics through various activities and case studies so that they:

- Discharge professional responsibilities with integrity, dignity, fairness and courtesy
- Give opinions in their professional capacity that are, to the best of their ability: objective, reliable and honest
- Avoid engaging themselves in activities which conflict with the interests of their organization.
- Not accept any financial or contractual obligation on behalf of his employer or client without their authority
- Treat colleagues and co-workers fairly and not misuse the advantage of position

#### Gender Sensitivity:

For students to demonstrate sensitivity with regard to gender issues, particularly on biological changes of both genders, showing empathy and appreciate healthy socialization among both the genders, a course on Gender Sensitization is introduced in the curriculum. Course is implemented through activity-based learning. With the help of Women Protection Cell (WPC) of the institute, various events are conducted promoting gender equality, wherein students realize the importance of sharing domestic work, economic and other contribution of women in the development of society. Some of the activities organized in the institution in promoting Gender Sensitization among

the student community include, awareness programs on "Gender Equality - Its importance", 'Women in Nation Building, "Training on self-defense techniques", "health and hygiene", and "impact of gender violence on society".

#### Environment and Sustainability:

To create awareness about environmental impact on society due to urbanization and industrialization, a course on "Environmental Studies" was made part of the curriculum. This course facilitates students to understand the ecosystem and its functions, acquire knowledge about different types of natural resources, namely, land, water, minerals, non-renewable energy; their excessive usage leading to detrimental effects on environment, and understand different types of pollution, its control and impact on global environment. Various activities such as Dust Free campaign, Environmental educational camps, Harithaharam (plantation of trees), active involvement in Swach Bharath, Village adoption etc. are conducted through Environmental club and NSS unit of the institute, with the voluntary participation of an appreciable number of students promoting ecological balance for sustainable development.

File Description	Documents
Upload the list and description of the courses which address issues related to Gender, Environment and Sustainability, Human Values and Professional Ethics in the curriculum	<u>View File</u>
Any additional information	No File Uploaded

### 1.3.2 - Number of value-added courses for imparting transferable and life skills offered during the year

22

File Description	Documents	
List of value-added courses	<u>View File</u>	
Brochure or any other document relating to value-added courses	<u>View File</u>	
Any additional information	No File Uploaded	

#### 1.3.3 - Number of students enrolled in the courses under 1.3.2 above

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#### 5693

File Description	Documents	
List of students enrolled	<u>View File</u>	
Any additional information	No File Uploaded	

#### 1.3.4 - Number of students undertaking field work/projects/ internships / student projects

#### 2724

File Description	Documents	
List of programmes and number of students undertaking field projects / internships / student projects	<u>View File</u>	
Any additional information	No File Uploaded	

#### 1.4 - Feedback System

# 1.4.1 - Structured feedback and review of the syllabus (semester-wise / year-wise) is obtained from 1) Students 2) Teachers 3) Employers and 4) Alumni

A. All 4 of the above

File Description	Documents	
Provide the URL for stakeholders' feedback report	https://drive.google.com/file/d/15oT4gn5M6CY PaJCzzAtnNWLtFZKKJhKc/view?usp=sharing	
Upload the Action Taken Report of the feedback as recorded by the Governing Council / Syndicate / Board of Management	<u>View File</u>	
Any additional information	<u>View File</u>	

### **1.4.2 - The feedback system of the Institution comprises the following**

A. Feedback collected, analysed and action taken made available on the website

File Description	Documents	
Provide URL for stakeholders' feedback report	https://drive.google.com/file/d/1d-Piteq_Cle SE9RjpeteGj2049QvZaaB/view?usp=sharing	
Any additional information	<u>View File</u>	

#### TEACHING-LEARNING AND EVALUATION

#### 2.1 - Student Enrollment and Profile

#### 2.1.1 - Enrolment of Students

#### 2.1.1.1 - Number of students admitted (year-wise) during the year

978

File Description	Documents
Any additional information	<u>View File</u>
Institutional data in prescribed format	<u>View File</u>

### 2.1.2 - Number of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc.) as per the reservation policy during the year (exclusive of supernumerary seats)

364

File Description	Documents
Any additional information	No File Uploaded
Number of seats filled against seats reserved (Data Template)	<u>View File</u>

#### 2.2 - Catering to Student Diversity

2.2.1 - The institution assesses students' learning levels and organises special programmes for both slow and advanced learners.

The college understands that most obvious characteristic of a slow learner, which is a limited attention span compared to other learners. To keep these slow learners actively engaged in the learning process, requires more than the usual variation in presentation methods (direct, indirect), classroom climate (cooperative, competitive), and instructional materials (videos, workbooks, co-operative activities, simulations, etc). If this variation is not part of one's lesson, these learners may well create their own variety in ways that disrupt our teaching. Other

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immediately noticeable characteristics of slow learners are their deficiencies in basic skills (reading, writing, and mathematics), their difficulty in comprehending abstract ideas, and most disconcerting, their sometimes unsystematic and careless work habits.

Keeping these in view, our faculty monitor students' performance during regular class activities, lab work, tutorials, assignments, midterm examinations, mentoring and results of semester end examinations. In addition, of late, we have been administering psychometric tests. Using all the above, we segregate students into three categories, namely, slow, medium and advanced learners.

For slow learners, we provide remedial classes and also associate them with a peer who is a medium or quick learner as well as with a faculty mentor.

Our faculty provide Compensatory Teaching, which recognizes content, transmits through alternate modalities (pictures versus words), and supplements it with additional learning resources and activities (through laboratory exercises and simulations, group discussions and co-operative learning by forming a group of students in which one each of quick and medium learners are attached to the slow learner). This involves modifying an instructional technique by including a visual representation of content, by using more flexible instructional presentations (videos, pictures, illustrations).

Remedial Teaching: In addition to the regular classroom teaching, remedial teaching is conducted for slow learners through the use of activities, techniques and practices to eliminate weaknesses or deficiencies that the slow learner is known to have. For example, deficiencies in basic mathematical skills are reduced or eliminated by re-teaching the content that was not learned earlier. Sub-divide topics by reordering them so that students get multiple exposure of the topics facilitating better learning. Conventional instructional techniques such as drill and practice are employed.

Other Instructional Strategies for Slow Learners include, developing lessons incorporating students' interests, needs and experiences, and individualized learning materials through reinforcement of small segments of learning. Further, emphasizing on frequent diagnostic assessment of the student progress, paired with immediate corrective instruction, often is particularly effective.

Advanced learners are provided with more challenging tasks. They are given additional training on value added courses ranging from advanced to highly advanced programming skills, Business English Certificate, additional training to participate in Hackathons, project exhibitions, coding competitions, etc. facilitating them to build prototypes.

Medium learners are associated with slow learners and given training on "Logical Reasoning, improving Vocabulary, Verbal Reasoning, and Quantitative aptitude" to get through preliminary test conducted by various companies for placements.

All categories of learners are given career guidance creating awareness on plethora of opportunities in terms of medium to highly paid jobs, pursue post-graduation etc.

File Description	Documents	
Upload any additional information	<u>View File</u>	
Paste link for additional information	https://docs.google.com/document/d/1VF70tP9wg8lDQxybITORQV9NisyMQ8jv/edit?usp=sharing&ouid=105062712823366765579&rtpof=true&sd=true	

#### 2.2.2 - Student – Teacher (full-time) ratio

Year	Number of Students	Number of Teachers
01/06/2021	3871	287

File Description	Documents
Upload any additional information	<u>View File</u>

#### 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:

Following are the student centric learning methods, which our faculty have been adopting to inculcate various skills in the students:

Collaborative Learning that facilitates students discuss ideas with classmates, in particular engage in subject specific discussions

with peers and get feedback from classmates. They also learn to work cooperatively and collaboratively with classmates supporting each other by assimilating multiple views to deepen knowledge promoting critical thinking. This facilitates students to look for opportunities to work in groups wherein they teach and learn from one another thereby mitigating learner isolation. In addition, it has been encouraging interaction with classmates and instructor in and outside of class by obtaining feedback, promoting out-of-class learning. Further, they have been able to develop effective teamwork and communication (including interpersonal and cross cultural awareness) skills which is fostering individual accountability and to the team, also resulting in development of independent learning strategies.

Group Learning towards development of Professional Competences:

In this pedagogical practice, Group Skills are developed, wherein student discusses ideas and develops ways to solve unstructured problems which have multiple solutions, resolve conflict and reach agreement in arriving at final solution. In doing so, student will be aware of feelings of members in the group by listening to ideas of others with open mind. Shall always look for opportunities to work on collaborative projects as a member of a team, working along with them both academically (e.g. knowledge of a topic) and socially (e.g. listening skills).

Learning through value added courses, wherein, student develops critical thinking on advanced/emerging topics as well as working on state of the art technologies gaining adequate exposure.

Experiential Learning facilitating development of Problem-Solving Skills:

This learning practice facilitates students with project based learning, developing various abilities, in particular, designing a system, object, product, etc. Further, it also facilitates students in solving an unstructured problem that requires identification of resources, interacting with peers, evaluation of possible solutions through discussions, and evidence of competing alternatives. Facilitates students to apply an abstract concept or idea to a real world problem, which is often solved by dividing the problem into manageable components and executing them individually, also working with a group and finally integrating into a workable solution, thereby, visualizing the product design and realizing the same. Subsequently, student develops technical report writing skills and presentation skills.

Facilitating interaction with various experts in the field through Guest Lectures, Industrial Visits, and Field trips thereby making them familiar with occupational awareness, wherein, student develops an ability to understand: What engineers do, the language and process of engineering design, and its economical aspects. They also understand the non-technical side of engineering such as its importance and impact on societal development, and environmental issues for sustainability.

File Description	Documents
Upload any additional information	<u>View File</u>
Link for additional Information	https://drive.google.com/file/d/1YNYZRKL1jEX BR5ljOy0kTjR6mtp-q9-b/view?usp=sharing

#### 2.3.2 - Teachers use ICT-enabled tools including online resources for effective teaching and learning

The institute has been able to put to use ICT enabled tools in teaching with the following objectives:

- Developing an understanding and application of the concepts to real world problems
- Developing reasoning and thinking, improving comprehension, speed reading and vocabulary for student's career progression.

Through the use of ICT, we have been able to provide variety in the presentation of the content thereby helping learners in better understanding of concepts and long-term retention of information.

Google Meet, Gotomeeting, Microsoft Teams, Zoom and cisco webex platforms have been used for conducting online classes, Guest lectures, Remedial classes, value added courses, orientation program, and a couple of virtual industry visits.

WhatsApp groups/ Gmail groups have been employed to ensure collaborative work and exchange of content between teachers and students. Close monitoring of the students has been in place by the respective mentors through WhatsApp/Telegramgroups.

Learners are able to get an opportunity to work on any live project with learners and experts from other institutes. There has been a qualitative improvement of Teaching - Learning Process. Use of ICT has facilitated flexibility to learners to learn at their own pace

which was denied by the traditional method.

WiFi network in the campus has been made available which students have been able to use for better understanding of different concepts, improving programming skills, aptitude skills and vocabulary, developing Reasoning & Thinking, etc. so that they are better equipped towards campus placements, GRE, TOEFL, GATE etc.

Use of ICT in Remedial Teaching

Have been conducting Remedial Teaching using ICT. Instructional material developed is uploaded on the institute's website, wherein students use and learn as per their convenience and take the help of the teacher as and when required.

Use of ICT in Evaluation

Digital evaluation has been facilitating students to get feedback within a few days of administering the tests, through which students have been able to improve their learning.

Use of ICT in Developing Virtual Laboratory

Some tools were procured which facilitate students and faculty to conduct certain experiments wherein one can manipulate any attribute or variable related to an experiment and can see how it affects the outcome. Virtual Laboratories can be developed using ICT although the institute is still in its infancy in doing so. It may be made available at the door step of each and every student by uploading it on the institute's website. Such a website will not only help our students but also goes a long way in helping students of other institutes.

Use of ICT in developing Thinking and Reasoning, improving comprehension, speed reading and vocabulary for student's career progression.

We have been using several video lectures, remote live sessions to impart programming skills, value added courses, aptitude skills (Quantitative, logical, reading comprehension, vocabulary, situational writing and soft skills). Use of ICT in developing these

skills in students has been resulting in their improved employability over the years.

File Description	Documents
Provide link for webpage describing ICT enabled tools including online resources for effective teaching and learning process	https://docs.google.com/document/d/11j3RCqWW goQpYr14bWs4GuZ2Sjrp70-h/edit?usp=sharing&ou id=105062712823366765579&rtpof=true&sd=true
Upload any additional information	<u>View File</u>

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

#### 2.3.3.1 - Number of mentors

201

File Description	Documents
Upload year-wise number of students enrolled and full-time teachers on roll	<u>View File</u>
Circulars with regard to assigning mentors to mentees	<u>View File</u>

#### 2.3.4 - Preparation and adherence to Academic Calendar and Teaching Plans by the institution

The institution plans and executes all academic, co-curricular and extra-curricular activities through a well-conceived academic calendar.

The Academic calendar for each program is prepared by Dean, Academics in consultation with HoDs and other in-charges enumerating all the above mentioned activities in each semester/year. Subsequently, each department specifies a time line of activities of its own including co-curricular and extra-curricular activities and incorporates the same in the academic calendar. The prepared academic calendar is reviewed by the College Academic Committee. It is subsequently presented to the Academic Council, which approves with or without modifications.

Six to Eight weeks prior to the commencement of each semester, Heads of the departments elicit course options from the faculty members which they would like to teach in the ensuing semester. The course options are taken in such a way that the faculty members shall

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include at least one course that has an associated laboratory component. Courses are allocated to the faculty based on their expertise. When the number of sections is more, the senior most among the faculty members teaching the particular course is designated as course coordinator, who in association with other faculty teaching the same course prepares the lesson plans for the course, for the duration of the semester. They also prepare a course fileby clarifying the purpose of the coursealong with expected learning outcomes (LOs) and methods for assessing the course outcomes.

The course purpose involves: the role the course plays within the Program, the uniqueness of the course within the Program and its relationship with other courses, essential knowledge or skills gained from this experience, prerequisite(s) for this course and outcomes of the course.

Laboratory instruction is planned such that students acquire an understanding of scientific methods/inquiry through problem solving which include recognizing and defining a problem, formulation of hypotheses, designing of experiments, collecting data through observation and experimentation, interpreting data and drawing conclusions. Subsequently, they prepare a report on the outcomes and their implications.

Tutorial sessions are conducted with two teachers handling the same course, so that, most of the students get involved in discussions and interactions with teachers while solving problems.

Teachers maintain a teaching diary that contains the topics discussed during a session, along with the record of students attended.

Departments maintain a weekly report for each section which keeps track of the number of sessions engaged for each course along with the topics discussed which is monitored by the Head of the department and Dean, Academics.

Course coordinator monitors the progress of the course during the semester and communicates the same to the programme coordinator.

Programme Assessment Committee (PAC) reviews the progress of various courses from time to time and suggests appropriate measures.

Various committees (both statutory and non statutory) are constituted for periodical reviews regarding the progress of curricular, co-

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curricular and extra-curricular activities. Academic committee, Academic council and governing body meet at stipulated intervals and review activities at institutional level.

File Description	Documents
Upload the Academic Calendar and Teaching Plans during the year	<u>View File</u>

#### 2.4 - Teacher Profile and Quality

#### 2.4.1 - Number of full-time teachers against sanctioned posts during the year

287

File Description	Documents
Year-wise full-time teachers and sanctioned posts for the year	<u>View File</u>
List of the faculty members authenticated by the Head of HEI	<u>View File</u>
Any additional information	No File Uploaded

### 2.4.2 - Number of full-time teachers with PhD/ D.M. / M.Ch. / D.N.B Super-Specialty / DSc / DLitt during the year

68

File Description	Documents
List of number of full-time teachers with PhD./ D.M. / M.Ch. / D.N.B Super-Specialty / D.Sc. / D.Litt. and number of full- time teachers for 5 years	<u>View File</u>
Any additional information	No File Uploaded

### 2.4.3 - Total teaching experience of full-time teachers in the same institution: (Full-time teachers' total teaching experience in the current institution)

5

File Description	Documents
List of teachers including their PAN, designation, Department and details of their experience	<u>View File</u>
Any additional information	No File Uploaded

#### 2.5 - Evaluation Process and Reforms

### 2.5.1 - Number of days from the date of last semester-end/ year- end examination till the declaration of results during the year

File Description	Documents
List of Programmes and the date of last semester-end / year-end examinations and the date of declaration of result	<u>View File</u>
Any additional information	No File Uploaded

### 2.5.2 - Number of students' complaints/grievances against evaluation against the total number who appeared in the examinations during the year

#### 437

File Description	Documents
Upload the number of complaints and total number of students who appeared for exams during the year	<u>View File</u>
Upload any additional information	No File Uploaded

## 2.5.3 - IT integration and reforms in the examination procedures and processes including Continuous Internal Assessment (CIA) have brought in considerable improvement in the Examination Management System (EMS) of the Institution

#### Examination Reforms

- 1. In the autonomous system is one of the most important components is the examination process. The following are the examinations conducted right through the semester.
  - 1. Two Mid-term examinations and for theory and lab courses
  - 2. Compensatory mid examination for theory and lab for both absentees and for improvement
  - 3. Semester End Examinations for theory and lab courses

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- 4. Supplementary examinations for theory and lab courses
- 2. At Geethanjali College of Engineering and Technology, we have devised a comprehensive examination system, backed by state-of-the-art hardware and software systems, to administer the process smoothly.
- 3. The marks to be awarded to each credit carrying course shall be 100, out of which, 30 marks are allocated for Continuous Internal Evaluation (CIE) and 70 marks for Semester End Examination (SEE).
- 4. Mid-semester Examination: Question papers shall be evaluated by a departmental committee comprising senior faculty members and a member from other department for correctness of the questions, a balanced question paper, with uniform weightage for the prescribed syllabus adhering to various levels of Bloom's taxonomy, with more questions pertaining to higher levels for third and final year courses. For second and third year students, relatively lesser number of questions are given at higher levels of Bloom's taxonomy.
- 5. Semester End Examination: Panel of examiners for preparation of question papers and evaluation of the answer scripts are chosen from various autonomous colleges and universities of repute, duly approved by the Board of studies of the concerned department. Guidelines are given to the examiners with regard to the levels of Bloom's taxonomy that shall be used in the preparation of question papers. Examiners are also provided the syllabus copy along with the structure of the question paper. Multiple question papers are elicited and the best question paper in terms of adherence to quality, higher order thinking levels and highly balanced one is selected for the examination purpose through scrutiny of the Question paper which shall be carried out by the Chairperson of Board of Studies, along with a senior faculty member (subject expert/course coordinator).
- 1. Evaluation: For the purpose of evaluation of semester end examination answer books, evaluators who have taught the course for a minimum of 5 times are invited. The chief examiner (subject expert/course coordinator) conducts a meeting with all the evaluators and explains the scheme of evaluation. The chief examiner randomly verifies at least ten percent of the evaluated answer books for consistency and correctness of evaluation, choosing a third each from the ten percent of the highest, moderately and least scored

respectively.

- 2. Digital valuation system, for CIE and SEE, is employed ensuring storage for longer duration as well as ease of evaluation through remote login which has also come in handy during the pandemic.
- 3. Computerization of the complete examination results processing system is adopted through state-of-the-art software and hardware components.
- 4. The examination results committee comprising Principal, Controller of Examinations, Heads of the departments and a nominee appointed by the affiliating university.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional Information	https://docs.google.com/document/d/10b30dwPf PSUFIubrOnJSqlEz0AiJ26fj/edit?usp=sharing&ou id=105062712823366765579&rtpof=true&sd=true

#### 2.6 - Student Performance and Learning Outcomes

2.6.1 - Programme Outcomes and Course Outcomes for all Programmes offered by the institution are stated and displayed on the website and communicated to teachers and students

Course outcomes of each course are given in the book that contains "Academic Regulations, Program Structure and Detailed Syllabus" which is given to all faculty and students. The same is uploaded on the college website department-wise. Course outcomes of each course are also available in the course file maintained by the teachers also made available on the website. Course outcomes of each lab course are also given in the lab manual/student workbook, in addition to displaying in the corresponding lab. Course outcomes of one course of each department are given below:

B.Tech Civil Engineering and B.Tech Mechanical Engineering

Course: Engineering Mechanics-I

- 1. Describe position, forces, and moments in terms of vector notation in two and three dimensions.
- Draw free body diagrams accurately and write appropriate equilibrium equations from the free body diagram, including support reactions.
- 3. Apply concepts of equilibrium to analyse systems that include frictional forces.

- 4. Calculate centroids and centres of mass for discrete particles.
- 5. Calculate moments of Inertia for standard sections and composite sections.

B.Tech Electrical and Electronics Engineering and B.Tech Electronics and Communication Engineering

Course: Digital Design

At the end of the course, student would be able to

- CO1. Perform conversions from one number system to another.
- CO2. Simplify switching functions using Boolean minimization theorems, map method and tabulation method.
- CO3. Analyze and design combinational logic circuits and the effect of Static Hazards on these circuits.
- CO4. Synthesize symmetric functions using relay contact networks.
- CO5. Design switching circuits using threshold elements.
- CO6. Analyze and Design Sequential logic Circuits
- B.Tech Computer Science and Engineering, B.Tech Computer Science and Engineering (Emerging Areas of Specializations) and B. Tech Information Technology

Course: Data Structures

- CO1. Explain the basic concepts of Abstract Data Types, Linear and Non-Linear Data structures.
- CO2. Calculate the performance of the different algorithms in terms of time and space.
- CO3. Write programs in C for different data structures like stacks, queues, linked lists (singly and doubly).
- CO4. Select appropriate data structure for a given problem.
- CO5. Write C programs for various searching algorithms, sorting algorithms and nonlinear data structures such as trees and graphs.

M. Tech Computer Science and Engineering

Course: Machine Learning

CO1: Understand the concepts of computational intelligence like machine learning

CO2: Ability to get the skill to apply machine learning techniques to address the real time problems in different areas

CO3: Understand the Neural Networks and its usage in machine learning application.

CO4: Student should be able to understand the basic concepts such decision tree and neural networks.

CO5: Ability to formulate machine learning techniques to respective problems.

#### **MBA**

Course: Marketing Management

CO1: Understanding the concepts of Marketing Management.

CO2: Analyze markets.

CO3: Design customer driven strategies.

CO4: Communicate the decisions towards business development with superior customer value.

CO5: Know the concepts of pricing decisions and concepts of personal communication.

File Description	Documents
Upload COs for all courses (exemplars from the Glossary)	<u>View File</u>
Upload any additional information	No File Uploaded
Link for additional Information	https://docs.google.com/document/d/1XOdKJOkk btdNa8-ro 2rTLYNvYWjHqC1/edit?usp=sharing&ou id=105062712823366765579&rtpof=true&sd=true

### 2.6.2 - Attainment of Programme Outcomes and Course Outcomes as evaluated by the institution PROCEDURE FOR MEASURING THE COS ATTAINMENT

- 1. CO attainments are calculated by considering marks obtained in each question of all students who attend Mid-term(CIE) and semester end examinations(SEE).
- 2. For Objective Paper of mid-term examinations, Assignments and Tutorials, overall CO attainment is calculated, made applicable to all COs, presuming all COs have same attainment.
- 3. For measuring the attainments of COs of a theory course, the targets are fixed as given below:
- Mid-Term Subjective: 60% of maximum marks related to each CO
- Assignments and Tutorials (if any): 60% of maximum marks (3 marks out of 5)
- Mid-Term Objective: 60% of maximum marks (6 marks out of 10)
- Semester End Examination: 60% of maximum marks related to each
   CO
- 1. Thus, the attainment levels are fixed as follows:

Semester End Exam

Level indicator for CO attainment against % of students attaining target marks

Level1

? 40 and <50

Level2

?50 and <60
Level3
?60

Mid-term Exams - Subjective, Objective, Assignments and Tutorials

Level indicator for CO attainment against % of students attaining
target marks

Level1

? 60 and <70

Level2

?70 to <80

Level3

?80

Indirect attainment - Course End Survey, CRC and TLP feedback Level indicator for CO attainment against feedback score

Level1

? 60% and <70%

Level2

? 70% and <80%

Level3

?80%

- 1. In the case of "Either-or" for a question, maximum marks scored by student is considered for CO attainment.
- 2. If no attempt is made to answer a question, zero marks are awarded and attainment calculated

- 3. Weightage for direct and indirect measurements for CO attainment: 75% (CIE and SEE), and 25% students' feedback on TLP (10%), CRC (10%) and Course End Survey (5%).
  - 1. Weightage for Direct measurement: 60% for SEE , 40% for CIE
  - 2. Direct Attainment of CO = 0.2\* Mid-term Subjective +
     0.1\* Mid-term Objective + 0.05\* Assignment + 0.05\*
     Tutorial + 0.6\* SEE.
  - 3. Indirect Attainment of COs through feedback = 0.4\* TLP+ 0.4\* CRC + 0.2\* CES
  - 4. Overall CO Attainment = 0.75\* Direct Attainment Level + 0.25\* Indirect Attainment Level
- 4. For practical examinations (CIE and SEE), 60% of maximum marks kept as target for attainment. Distribution of marks as follows: SEE-70, CIE-30(Mid-Term-15, Day to day-15)
  - 1. CO attainment levels: greater than or equal to 80% for Level3, greater than or equal to 70% for Level2 andgreater than or equal to 60% for Level1
- 5. Similar procedure has to be adopted for Projects, Seminars, Mini Projects, Internships and other such similar courses.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional Information	https://docs.google.com/document/d/ldq8tUiUy AVOEMSYrCPXioZNlmAqx0Cx1/edit?usp=sharing&ou id=105062712823366765579&rtpof=true&sd=true

#### 2.6.3 - Pass Percentage of students

### 2.6.3.1 - Total number of final year students who passed in the examinations conducted by Institution

932

File Description	Documents
Upload list of Programmes and number of students appear for and passed in the final year examinations	<u>View File</u>
Upload any additional information	No File Uploaded
Paste link for the annual report	http://www.geethanjaliinstitutions.com/engin eering/announcements.html

#### 2.7 - Student Satisfaction Survey

### 2.7.1 - Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design its own questionnaire). Results and details need to be provided as a weblink

https://drive.google.com/file/d/1Guo7PkeDh DpySjFBamJpuaC26iadyDv/vi
ew

#### RESEARCH, INNOVATIONS AND EXTENSION

#### 3.1 - Promotion of Research and Facilities

3.1.1 - The institution's research facilities are frequently updated and there is a well-defined policy for promotion of research which is uploaded on the institutional website and implemented

College strongly believes that research is an integral part of any scholarly activity, which facilitates/develops creativity, innovation, analytical thinking and problem solving capabilities among students and faculty. Towards this end, College has applied for recognition as Scientific and Industrial Research Organization (SIRO), Directorate of Scientific and Industrial Research (DSIR) in 2011 and has been recognized as SIRO since March 2011.

The goal, policy and implementation of research are given hereunder.

Goal: To foster an environment of open inquiry and academic freedom in which individuals pursue scholarly activities.

Accordingly, the policy adopted, its implementation and the vision are as follows:

Policy and implementation: Devised an organizational structure at departments which proactively promotes and encourages research facilitating younger faculty and students to associate themselves with senior faculty in pursuing research. Towards this, each department is divided into groups/divisions as per areas of

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specializations and faculty are grouped accordingly. A senior Professor heads each division, a few other senior faculty of that division act as Lead Faculty and act as mentors to other faculty of that division and guide them in their academic and research pursuits.

- a) Undergraduate and Postgraduate students are encouraged to take up research oriented projects for dissertation. Students and faculty are financially supported to attend/participate in conferences; financial incentives are given for publishing/presenting their research work and costs involved for patenting, if any. About 40 research papers from Undergraduate theses work have been published in the year 2020-2021.
- b) Faculty are encouraged to register for Ph.D. Study leave is provided to faculty pursuing full time Ph.D. Faculty who have put in a service of Three/Five years in the college and pursuing Ph.D are given a day off in a week to expedite their research work.
- c)Whenever research proposals have been called for either through internal and external funding, faculty with research potential and capabilities of various departments are identified and advised to identify research problems preferably involving interdisciplinary areas and encouraged to submit the same to the research committee of the college, which discusses and further identifies resource persons in other departments/organizations for collaboration, if any, so that an interdisciplinary research proposals evolve which are finally submitted for funding purposes. Based on its utility to society, college provides seed money as internal funding to initiate the research project. A couple of interdisciplinary research projects have evolved with internal as well as external funding. Industrial linkage is encouraged so that the outcome of the research work being carried out would be utilised by the industry/society.
- d) College has entered into a few MoUs with various organizations to strengthen research and development activity. Experts from industry and R&D organizations have been invited as members into Governing body, Academic council of the college and Board of studies of various departments. Faculty Development Programmes, Guest Lectures and Student development programmes are conducted inviting experts from industry and R&D establishments, who have been facilitating students through internships, some of which resulting in jobs for

#### students.

File Description	Documents
Upload the Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	<u>View File</u>
Provide URL of policy document on promotion of research uploaded on the website	https://www.geethanjaliinstitutions.com/engineering/img/downloads/ResearchPolicy_GCET.pd
Any additional information	No File Uploaded

#### 3.1.2 - The institution provides seed money to its teachers for research

### 3.1.2.1 - Seed money provided by the institution to its teachers for research during the year (INR in lakhs)

#### NIL

File Description	Documents
Minutes of the relevant bodies of the institution regarding seed money	No File Uploaded
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	<u>View File</u>
List of teachers receiving grant and details of grant received	No File Uploaded
Any additional information	No File Uploaded

### 3.1.3 - Number of teachers who were awarded national / international fellowship(s) for advanced studies/research during the year

0

File Description	Documents
e-copies of the award letters of the teachers	No File Uploaded
List of teachers and details of their international fellowship(s)	No File Uploaded
Any additional information	No File Uploaded

#### 3.2 - Resource Mobilization for Research

### 3.2.1 - Grants received from Government and Non-Governmental agencies for research projects, endowments, Chairs during the year (INR in Lakhs)

#### 58.95

File Description	Documents
e-copies of the grant award letters for research projects sponsored by non-governmental agencies/organizations	<u>View File</u>
List of projects and grant details	No File Uploaded
Any additional information	<u>View File</u>

#### 3.2.2 - Number of teachers having research projects during the year

80

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional Information	http://www.geethanjaliinstitutions.com/engin eering/research-project.html
List of research projects during the year	<u>View File</u>

#### 3.2.3 - Number of teachers recognised as research guides

80

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File Description	Documents
Upload copies of the letter of the university recognizing teachers as research guides	<u>View File</u>
Institutional data in Prescribed format	<u>View File</u>

### 3.2.4 - Number of departments having research projects funded by Government and Non-Government agencies during the year

04

File Description	Documents
Supporting document from Funding Agencies	<u>View File</u>
Paste link to funding agencies' website	http://www.geethanjaliinstitutions.com/engin eering/research-project.html
Any additional information	No File Uploaded

#### 3.3 - Innovation Ecosystem

3.3.1 - Institution has created an ecosystem for innovations and creation and transfer of knowledge supported by dedicated centres for research, entrepreneurship, community orientation, incubation, etc.

We at GCET fervently believe that educational institutions are a mirror of future society. The foremost goal of education is to create men and women who are capable of doing new things, be creative in their thinking and add value in providing solutions to societal problems.

Towards this motive, we have established an incubation center which has been facilitating creativity and innovation among students and faculty. Its very purpose is to provide interactive and freethinking environment, wherein students, faculty and others exchange ideas on problems facing society and providing environmental friendly sustainable solutions to societal problems through innovative research projects working collaboratively and cooperatively with all concerned.

The philosophy of our incubation center is to provide resources to students and faculty so that their ideas can be transformed to reality thereby generating an entrepreneurial culture among students and faculty. Ecosystem for innovation, creation and transfer of

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knowledge is largely constituted by the incubation center which works in tandem with the R&D cell and entrepreneurship development cell of the college. Our Incubation centre has been working under the guidelines of Institute's Innovation Council (IIC) of Ministry of Education. We also have been in collaboration with J-HUB, a state government funded under section '8' incubation center called, J-LABs at Jawaharlal Nehru Technological University Hyderabad (JNTUH), Kukatpally Hyderabad.

Design thinking and Entrepreneurship courses have been administered for students through faculty and also through industry experts, entrepreneurs, and community.

GCET has adopted the National innovation and Startup policy (NISP) for encouraging and nourishing the innovation quotient and entrepreneurial abilities of the students, coming with innovative ideas and also has been improving the employability skills of students. The Centre invites ideas not only from students, faculty but also from others through its dedicated webpage.

Ideas are reviewed by a committee comprising of senior professors and accordingly seed money is made available to undertake Innovative projects and resulting IPRs are protected through patenting with financial support.

24-36Hr Hackathons, ideathons are conducted periodically to identify potential ideas. An expert committee to guide the incubatees is constituted with a mix of eminent personalities coming from different backgrounds viz., serial entrepreneurs, venture capitalists, industrialists, alumni working in senior positions and enthusiastic faculty. We have currently three startups registered and incorporated with Ministry of Corporate Affairs, Government of India, receiving incubation support from the GCET's incubation center. College also has registered with MSME, Government of India.

MoUs with various organizations were signed to strengthen the innovation activities to provide the information on entrepreneurship to the student and faculty. Our Center is motivating students to involve in the activities of the centre to come up with innovative ideas which are implemented practically for which necessary financial support and infrastructural facilities are provided.

Our eco-system is manifested by providing opportunities to students and faculty to showcase their products developed for technology transfer by forging and reinforcing connection between academic, research organizations, industry, businesses, and government.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://docs.google.com/document/d/1PSNm meV zI19dLp3Jwfiy2Cq7DRTUd/edit?usp=sharing&ou id=105062712823366765579&rtpof=true&sd=true

# 3.3.2 - Number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR), Entrepreneurship and Skill Development during the year

File Description	Documents
Report of the events	<u>View File</u>
List of workshops/seminars conducted during the year	<u>View File</u>
Any additional information	No File Uploaded

#### 3.4 - Research Publications and Awards

3.4.1 - The Institution ensures implementation of its Code of Ethics for Research uploaded in the website through the following: Research Advisory Committee Ethics Committee Inclusion of Research Ethics in the research methodology course work Plagiarism check through authenticated software

_		_		_
Α.	$\mathbf{A} \mathbf{I} \mathbf{I}$	Of	the	above

File Description	Documents
Code of Ethics for Research, Research Advisory Committee and Ethics Committee constitution and list of members of these committees, software used for plagiarism check	<u>View File</u>
Any additional information	No File Uploaded

# 3.4.2 - Number of PhD candidates registered per teacher (as per the data given with regard to recognized PhD guides/ supervisors provided in Metric No. 3.2.3) during the year

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#### 3.4.2.1 - Number of PhD students registered during the year

0

File Description	Documents
URL to the research page on HEI website	https://docs.google.com/spreadsheets/d/1mVdN LbQPnA ABQqqwBw53SxH7Lq8r4XH/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd=t rue
List of PhD scholars and details like name of the guide, title of thesis, and year of registration	<u>View File</u>
Any additional information	<u>View File</u>

# ${\bf 3.4.3}$ - Number of research papers per teacher in CARE Journals notified on UGC website during the year

128

File Description	Documents
List of research papers by title, author, department, and year of publication	<u>View File</u>
Any additional information	No File Uploaded

# 3.4.4 - Number of books and chapters in edited volumes / books published per teacher during the year

9

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	https://docs.google.com/spreadsheets/d/1F070 JZdyQtWjcDYrEErfgJPArJHNrW/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd=t rue

# 3.4.5 - Bibliometrics of the publications during the year based on average Citation Index in Scopus/ Web of Science/PubMed

#### 3.4.5.1 - Total number of Citations in Scopus during the year

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35

File Description	Documents
Any additional information	No File Uploaded
Bibliometrics of the publications during the year	<u>View File</u>

# 3.4.6 - Bibliometrics of the publications during the year based on Scopus/ Web of Science – h-Index of the University

#### 3.4.6.1 - h-index of Scopus during the year

13

File Description	Documents
Bibiliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	<u>View File</u>
Any additional information	No File Uploaded

#### 3.5 - Consultancy

# 3.5.1 - Revenue generated from consultancy and corporate training during the year (INR in lakhs)

0

File Description	Documents
Audited statements of accounts indicating the revenue generated through consultancy and corporate training	<u>View File</u>
List of consultants and revenue generated by them	<u>View File</u>
Any additional information	<u>View File</u>

# 3.5.2 - Total amount spent on developing facilities, training teachers and clerical/project staff for undertaking consultancy during the year

0

File Description	Documents
Audited statements of accounts indicating the expenditure incurred on developing facilities and training teachers and staff for undertaking consultancy	<u>View File</u>
List of training programmes, teachers and staff trained for undertaking consultancy	<u>View File</u>
List of facilities and staff available for undertaking consultancy	No File Uploaded
Any additional information	<u>View File</u>

#### 3.6 - Extension Activities

3.6.1 - Extension activities carried out in the neighbourhood sensitising students to social issues for their holistic development, and the impact thereof during the year

The college promotes regular engagement of faculty, students and staff with neighbourhood community for their holistic development and sustained community development through various activities. Every Year, programs are organized under which students, faculty and staff participate voluntarily in community-based activities with neighbourhood.

Various awareness programs, workshops, rallies and road shows with themes like cleanliness, green environment and tree plantation, gender sensitization, traffic rule awareness, and empowerment of girls and women are organized.

Continuous voluntary activities by students to maintain cleanliness in and around the Campus, creating awareness about the role of clean environment for human health and contributed to the National Swachh Bharat Abhiyan

Blood Donation and Oral Health (Aim to Terminate Tobacco and Cancer) camps, and Training of Rural Women have been organized.

Impact and Sensitization:

Exposure to extension and outreach activities sensitized students towards social issues and also to legal and social remedies for matters like domestic violence, dowry, child abuse, female child, victims of violence, old and infirm, refugees and displaced persons

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etc.

The activities conducted lead imbibing the values of social responsibility such as:

To help people in need and distress

To understand and share the need of under privileged children

To promote cleanliness in all span of life and common places.

To acquire social values and a deep interest in environmental related issues.

Learning outcomes of the activities:

Enlargement of knowledge on societal issues and problems and to search solution by getting involved with their lives.

Develop skill and an aptitude for problem solving.

The skills developed include social skills communication skills, management skills, leadership skills, analytical skills, perceptual skills etc.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	https://docs.google.com/document/d/18CdPS1qZ 4rc8qgi8KUFOgp5nbqtntJ0r/edit?usp=sharing&ou id=105062712823366765579&rtpof=true&sd=true

# 3.6.2 - Number of awards and recognition received by the Institution, its teachers and students for extension activities from Government / Government-recognised bodies during the year

0

File Description	Documents
Number of awards for extension activities in during the year	<u>View File</u>
e-copy of the award letters	No File Uploaded
Any additional information	No File Uploaded

3.6.3 - Number of extension and outreach programmes conducted by the institution through NSS/NCC/Red Cross/YRC, etc. during the year (including Government-initiated programmes such as Swachh Bharat, AIDS Awareness, and Gender Sensitization and those organised in collaboration with industry, community and NGOs)

02

File Description	Documents
Reports of the events organized	<u>View File</u>
Any additional information	<u>View File</u>

#### 3.6.4 - Number of students participating in extension activities listed in 3.6.3 during the year

#### 185

File Description	Documents
Reports of the events	<u>View File</u>
Any additional information	No File Uploaded

#### 3.7 - Collaboration

# 3.7.1 - Number of collaborative activities during the year for research/ faculty exchange/ student exchange/ internship/ on-the-job training/ project work

600

File Description	Documents
Copies of documents highlighting collaboration	<u>View File</u>
Any additional information	No File Uploaded

3.7.2 - Number of functional MoUs with institutions of national and/or international importance, other universities, industries, corporate houses, etc. during the year (only functional MoUs with ongoing activities to be considered)

17

File Description	Documents
e-copies of the MoUs with institution/ industry/ corporate house	<u>View File</u>
Details of functional MoUs with institutions of national, international importance, other institutions etc. during the year	<u>View File</u>
Any additional information	No File Uploaded

#### INFRASTRUCTURE AND LEARNING RESOURCES

#### 4.1 - Physical Facilities

4.1.1 - The Institution has adequate infrastructure and physical facilities for teaching-learning, viz., classrooms, laboratories, computing equipments, etc.

Geethanjali College of Engineering and Technology is located in a lush green campus of 10 acres, with aesthetically pleasing buildings, provides good academic ambience, conducive for Learning.

The college has 53 well-furnished and spacious classrooms, 14 tutorial rooms and 5 air-conditioned seminar halls with good acoustics. Some class rooms and seminar halls have LCD Projector, Wi-Fi connectivity and public address system. The institution has 79 fully equipped and well-maintained laboratories to cater to the needs of the curriculum. Research laboratories with industrial collaboration and Centres of Excellence in specific areas are established to provide domain specific training for students.

Apart from the required computer laboratories for each department, two additional computer centres are established. We have 2146 Computers in the institute which are provided with 210 Mbps internet connectivity, there by address over and above the needs of the curriculum.

In addition to the central Library of the institute, each department has a separate library with good collection of textbooks. E-learning facility is provided in a few class rooms. Digital Library is accessible on LAN (Intranet) to all students and faculty. Library server has a large collection of learning material.

College provides special facilities for differently abled persons, namely, Lifts, Ramp/ Rails, Wheel chairs. First aid boxes are available in the departments, laboratories and workshops.

Institution has a linkage with Vijaya Hospital for any emergency

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medical assistance. The college has an Ambulance with Oxygen cylinder and stretcher, an in-house Medical Centre/ Dispensary with a fulltime nurse.

College has adequate power backup and UPS facilities. Entire electrical load of the college can be run ontwo Kirloskar diesel generators of 200 KVA and 125 KVA. All thelaboratories are using 25 different sizes of UPS with a total capacity of 190 KVA.

Cabins for Deans, HoDs, Professors and Associate Professors with computer and printer facilities are available. Discussion rooms, Meeting rooms are available. Fire extinguishers are placed in each floor of each building.

Potable drinking water is made available in the entire campus through an RO plant. College has a fleet of 40 busses plying from all prominent places of the city. Special buses are arranged for students and staff staying beyond working hours. College has a good hygienic canteen.

Infrastructural Facilities

Room Type

Required Number

Available Number

Required Area in sqm.

Available Area in sqm.

Class Rooms

53

53

3498

3869

Tutorial Rooms

14
14
462
893
Laboratories
79
79
5214
6277
Workshops
02
02
469
Additional Workshops
04
04
851
Computer Centres
02
02
305

Drawing Hall

03
751
Library
01

01 996

Language Laboratories

02

Research Laboratories

136

Computing Facilities

Description

186

Available Number
Desktop Computers
2146
Servers
04
Laptops
14
Printers
84
LCD Projectors
20
Scanners
30
CCTV Cameras
40
Internet
210 Mbps
WiFi
Reliance Jio and Stand-alone
Firewall
02
Router
90

#### Writing Pads for Online classes

30

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://docs.google.com/document/d/1g0fUkzzX eWe83qfkRsOaSLRXTORBsaSC/edit?usp=sharing&ou id=105062712823366765579&rtpof=true&sd=true

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

We strongly believe that the college years are crucial in students' cognitive, emotional, moral, and social development. Their interaction with peers through various co-curricular and extracurricular activities that include sports and cultural activities influences development of their cognitive skills, identity, self-concept, and self-esteem, and values and attitudes, behavior patterns, and personality. They come across people who see the world differently than themselves and hear a lot of ideas/perceptions, contrary to their own, which they may not agree with. This experience enables them to keep an open mind, respect others' views and try to understand, even if one does not agree with them.

The college with its sprawling, lush green open-air Auditorium having 3000 seating capacity provides a breathtaking view and abundant space facilitates a number of functions. Notable among them are: Graduation Day, Traditional Day, Orientation Day for First Year students, Bathukamma, a flower festival, Earth Day, College Day celebrations, Music, Singing, Dance Rangoli, Skits, and Photo Exhibitions. Active participation of students in various events, facilitate development of Creativity, Innovative thinking, Leadership, and Emotional Quotient in them.

The college has six academic blocks for carrying out instruction and other associated co-curricular, extra-curricular and cultural activities.

Block-I has a 250-seater, Air-conditioned Seminar Hall and two smaller seminar halls where a good number of literary activities, namely, group discussion, JAM sessions, Bull's eye, what's the good word, etc. are conducted so that students develop articulation, critical thinking and interpersonal skills.

The portico of Block II, overlooking an aesthetically laid our garden is the stage for smaller events, namely, Fashion Shows, Dance Competitions, Painting Exhibitions etc. Table-tennis, carroms and chess games are held in the games room of Block-II.

In Block III, the 100-seat Seminar Hall facilitates conduct of mini conferences, departmental events, etc. The grounds in front of Block-III facilitate conduct of sports, which require lesser space. In addition, they also house the Basketball Court, and net practice sessions for cricket players.

Block-IV is furnished with a 400-seat Air-conditioned Seminar Hall, used for performing dance and musical programs, in addition to some co-curricular activities.

Yoga sessions are conducted on the lawns of the Open Auditorium and Seminar Halls.

The college allocates one/two-hour time slots in Timetable encouraging students participation in sports thereby inculcating sporting spirit in them and they understand winning losing are part of life. Transportation is arranged for students participating in sports and games beyond college working hours to reach their homes. It's the college's conviction that holistic development of a student is only possible, when students participate in several cultural, literary and sports activities over and above their academics. Geethanjalites won several laurels in State Under-19 competitions in many sports events in the past few years.

File Description	Documents
Geotagged pictures	<u>View File</u>
Upload any additional information	No File Uploaded
Paste link for additional information	https://docs.google.com/document/d/1TuFoFknZ 4Hj0E0VAW241Xhp5q2Ls47/edit?usp=sharing&ou id=105062712823366765579&rtpof=true&sd=true

#### 4.1.3 - Number of classrooms and seminar halls with ICT-enabled facilities

10

File Description	Documents
Upload any additional information	<u>View File</u>
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	<u>View File</u>

# 4.1.4 - Expenditure for infrastructure augmentation, excluding salary, during the year (INR in Lakhs)

#### 610.53

File Description	Documents
Upload audited utilization statements	<u>View File</u>
Details of Expenditure, excluding salary, during the years	<u>View File</u>
Any additional information	No File Uploaded

#### 4.2 - Library as a Learning Resource

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

Data Requirement: Provide a description of the library with

- Name of the ILMS software: Ez Library Software and Winnou Application Software
- Nature of automation (full or partial) : Fully Automated
- Version: EzLibrary 10.0.9.22 and Winnou Application 2.0
- Year of automation :2009

Present a write-up within a maximum of 200 words.

The institute has a spacious central library in an independent building with an area of 1110 Sqm. spread over two floors. First Floor is accommodating OPAC, periodicals, News Papers, digital library, thesis, reprography and special reference. Second floor is accommodating circulation, references, periodical back volumes,

computer centre etc. It is having a modern infrastructure with a seating capacity of 250 students.

Digital library with 100 systems to access E-journals, E-books, E-learning, Multimedia Centre and photocopying are made available for the convenience of the users and facility to access NPTEL video lectures.

Central Library is fully automated with Integrated Library
Management Software, Ez-Library version 10.0.9.22 and Winnou version
(2.0) used for circulation, procurement, Online Public Access
Catalogue (OPAC). All library documents are bar-coded and books
issued to users by scanning the barcode of the document.

It has the collection of 6627 Titles and 38338 volumes of books and subscribed more than 6422 online journals of IEEE,K-HUB,DELNET,NATIONAL DIGITAL LIBRARY, and subscribed 170 Journals in print.

Library & Information Centre provides uncompromising information and intellectual requirements to its students and faculty with user-friendly approach. It offers a fully integrated and dynamic environment for conducting academic study. Library is fully computerized with bar-coding system

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	https://docs.google.com/document/d/1b4B80Eqb 4bP3azeP-tdOJbQqzjjVfRwLwCJm7pCXZC0/edit

4.2.2 - Institution has access to the following: e- A. Any 4 or more of the above journals e-ShodhSindhu Shodhganga
Membership e-books Databases Remote access to e-resources

File Description	Documents
Details of subscriptions like e- journals, e-books, e- ShodhSindhu, Shodhganga membership	<u>View File</u>
Upload any additional information	<u>View File</u>

# 4.2.3 - Expenditure on purchase of books/ e-books and subscription to journals/e-journals during the year (INR in lakhs)

#### 16.63

File Description	Documents
Audited statements of accounts	<u>View File</u>
Any additional information	<u>View File</u>
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the year (Data Template)	<u>View File</u>

#### 4.2.4 - Usage of library by teachers and students (footfalls and login data for online access)

#### 4.2.4.1 - Number of teachers and students using the library per day during the year

82

File Description	Documents
Upload details of library usage by teachers and students	<u>View File</u>
Any additional information	<u>View File</u>

#### 4.3 - IT Infrastructure

4.3.1 - Institution has an IT policy covering Wi-Fi, cyber security, etc. and has allocated budget for updating its IT facilities

Purpose of IT Policy

- To maintain, secure, and assure the lawful and acceptable usage of the College's information technology infrastructure on campus.
- To define College-wide strategies and responsibilities for safeguarding information assets that the College accesses, creates, manages, and/or controls.

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- Assisting stakeholders with the use of the College's computing resources, such as computer hardware, software, email, information resources, intranet, and Internet access.
- To give direction and information on acceptable and banned actions, as well as policy violations.

#### Scope of IT Policy

- The College IT Policy covers technology that is administered centrally or by individual departments, as well as information services provided by the College administration, individual departments, or members of the College community.
- This IT policy also covers resources administered by departments such as the Library, Computer Labs, Laboratories, and Administrative Offices of the College.
- When computers belonging to individuals or research projects of faculty are connected to the campus network, they are subject to the Do's and Don'ts outlined in the College IT policy.
- In addition, all faculty, students, employees, departments, approved visitors/visiting faculty, and others who may be given authorization to utilise the College's information technology infrastructure.
- IT policies broadly concentrates on the following areas

#### Guidelines for IT Hardware Installation and Maintenance

- IT Hardware Installation and Maintenance is performed by System Administrators
- Faculty and the departments can submit IT Hardware requirements based on their academic requirements.
- Procurement of IT Hardware should be initiated based on the availability of stock and the requirements submitted by the departments.
- Stock Register should be updated immediately when IT Hardware is procured.
- Maintenance of Computer Systems should be done periodically by System administrators and the same need to be recorded in Maintenance register.
- Movement of IT Hardware within the college or outside the college should be recorded in Movement Register.
- The major e-waste such as written off instruments /equipment's, CRTs, Printers, Computers, batteries should be sold regularly.
- The Faculty or The Department is solely responsible for the IT Hardware provided to them and any damage or loss or theft need

to be addressed bared by them only.

#### Guidelines for Software Installation and Licensing

- College IT policy allows authorized and open source software installation on the College computers. In case of any violation the College will hold the Department/Individual personally responsible.
- Open source software should be used in their systems wherever possible.
- · Licensed software need to be installed in the systems.
- Antivirus Software need to be procured and installed in the systems
- Software's used for academic and administrative purposes should adhere to ISO standards

#### Guidelines for Network (Intranet & Internet) Usage

- Any computer (PC/Server) that will be connected to the College network should have an IP address assigned by the System Administrators.
- An IP address allocated for a particular computer system should not be used on any other computer even if that other computer belongs to the same individual and will be connected to the same port.
- Change of the IP address of any computer by staff or student is strictly prohibited.
- Configuration of a network will be done by system administrators only.
- Access to remote networks using a College's network connection must be in compliance with all policies and rules of those networks.
- Internet and Wi-Fi facilities should be used for academic and administrative purpose only.

#### Guidelines for E-mail Accounts

- Every faculty and student is provided with an E-mail
- The E-mail facility should be used primarily for academic and official purposes and to a limited extent for personal purposes.
- Using the E-mail facility for illegal/commercial purposes is a direct violation of the College's IT policy and may entail withdrawal of the facility.

- Faculty should refrain from intercepting, or trying to break into others email accounts, as it is infringing the privacy of other users.
- Impersonating email account of others will be taken as a serious offence under the College IT security policy

#### Guidelines for Web Site Hosting

- The College Website should be used to provide academic and administrative information for its stake holders.
- Maintain up to date pages. Proofread pages and test links before putting them on the Web, and regularly test and update links.
- The contents hosted on website should be correct and clear.
- The departments, and Associations of Teachers/Employees/Students may have official Web page on Website. Official Web pages must conform to the College Web Site Creation Guidelines.
- LMS can be linked to the website so that Faculty may post class materials (syllabi, course materials, resource materials, etc.) on the Web to facilitate eLearning

#### Role of Network/System Administrators

- To Design College Network and perform Backbone operations
- To follow Global Naming & IP Addressing conventions
- To review the existing networking facilities, and need for possible expansion.
- Configuring and maintenance of Wireless Local Area Networks
- To configure and maintain IT facilities provided in class rooms, Labs and Seminar halls
- To Maintain servers in the server room
- To discourage installing any unauthorized software on the computer systems of the users. They should strictly refrain from obliging such requests.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://docs.google.com/document/d/10aL2MxWX OgBZVKeE5jpARF6VO0BgXsgm/edit?usp=sharing&ou id=105062712823366765579&rtpof=true&sd=true

#### 4.3.2 - Student - Computer ratio

Number of Students	Number of Computers
3871	1818

File Description	Documents
Upload any additional information	<u>View File</u>

# 4.3.3 - Bandwidth of internet connection in the A. ?50 Mbps Institution and the number of students on campus

File Description	Documents
Details of bandwidth available in the Institution	<u>View File</u>
Upload any additional information	No File Uploaded

# 4.3.4 - Institution has facilities for e-content development: Facilities available for e-content development Media Centre Audio-Visual Centre Lecture Capturing System (LCS) Mixing equipments and software for editing

E. None of the above

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	Nil
List of facilities for e-content development (Data Template)	<u>View File</u>

#### 4.4 - Maintenance of Campus Infrastructure

4.4.1 - Expenditure incurred on maintenance of physical and academic support facilities, excluding salary component, during the year (INR in lakhs)

1418.72

File Description	Documents
Audited statements of accounts	<u>View File</u>
Upload any additional information	No File Uploaded

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

The Maintenance Cell of the college ensures proper functioning of all civil, electrical, water, sewage, environment, and other facilities.

The cell performs routine check-ups and repair works thereby providing good ambience in the college. A central complaint register is maintained, and the maintenance cell attends to those complaints on a priority basis. A vast majority of minor and major repairs are carried out internally, while some major repairs are outsourced. The maintenance cell is headed by Dean-Administration. The other members of the cell include Administrative Maintenance in-charge, Head of EEE department, and two senior faculty members, one each from Civil Engineering and Mechanical Engineering departments. The members of the cell meet once in a month: review the requirements and chalks out further action that may be needed. The cell also arranges to conduct energy audit. Staff belonging to the maintenance cell perform routine cleaning of the water tanks, water coolers, filters, etc. as per schedule. Gardeners and janitors conduct cleaning of the campus premises and restrooms at least twice a day.

The regular maintenance of all the seminar halls of the institute, Open air auditorium, Portico of Block-2, open air grounds, playground etc. are supervised by the Administrative officer. The Faculty/students put a letter in the prescribed format (mentioning the date and time of requirement) seeking the allocation of the required physical facility for the respective events to be organized. After the allocation as per the availability, such information is entered in a register kept with the Administrative officer.

All OHP/LCD projectors in the institute, furniture available in the classroom, faculty/staff rooms are regularly monitored on fortnight basis for maintenance. Any complaints regarding the classroom's infrastructure will be inquired from the students of the respective classes during the class review committee meetings and the same will be reported to the Administrative officer by the respective class teacher for necessary attention. All these activities are monitored

by the Maintenance cell of the institute.

Two transformers (125kVA and 200kVA) are installed in the institute to meet power requirements of the institute. We have two 25kVA and one 10kVA UPS, 240V DC supply along with Batteries for power backup. Two diesel generators 125kVA and 225kVA are used in case of power failure for smooth conduct of experiments in the laboratories. As a part of initiation in promoting the concept of green energy, a 250kW solar power station is installed in the institute. All the laboratories are provided with UPS. The maintenance cell of the institute undertakes the installation and maintenance of these equipment through monitoring at regular intervals.

Department laboratories are established catering to the curricular and co-curricular requirements. All laboratories are provided with required operating manuals for their smooth functioning.

Laboratories are also kept open beyond working hours as per the requirement. Preventive maintenance of the equipment is a regular practice in all laboratories apart from breakdown maintenance.

Periodic calibration is adopted for lab equipment requiring precision and accuracy. Central workshops provide required support and maintenance works such as minor carpentry, welding, plumbing, electrical maintenance, computer systems and network, in addition to transport vehicles. The institute performs maintenance and update of college website and all software used in the college.

Each laboratory maintains a stock register for detailing the proper lab records. The lab stock register holds the complete details of lab equipment, new arrivals, replacements of old equipment, maintenance details, license details etc. Each lab is associated with a qualified Technical Staff for maintenance of all lab equipment. Any major repair of equipment beyond the scope of technical staff is outsourced. Obsolete and irreparable equipment is weeded out on regular basis. A register for "Lab equipment Repair/ Maintenance" is kept in each lab to track the breakdown time of equipment and the maintenance details. A minimum of 20% to 30% of unutilized lab slots per week are allotted for regular maintenance works of the laboratories.

The college has two central computing facilities located in the library which are also used for browsing and accessing electronic content of learning resources. The institute has established separate maintenance cell, responsible for the maintenance works of computers, Hardware and software installations/up-gradations, wi-fi and internet maintenance. The cell is chaired by a senior faculty

from Computer Science Engineering department who supervises the supporting staff required for this purpose.

The college library has audio visual content of various specializations, catering to the needs of students, staff and faculty. The college library functions beyond working hours up to 6 pm, wherein students spend their time in utilizing various facilities available in the library.

To facilitate students leaving the campus beyond working hours, a college bus is provided every day to start from college after 6 pm.

The Library has an Electronic Resource Center (ERC) which provides access to vast stores of electronic information of IEEE, DELNET and unlimited number of digital, online open resource journals of Engineering, Applied Sciences, Management and other Internet-based service to its readers.

The College has a Digital Library, which is connected to the college's intranet and providing services, such as digitalized versions of question papers, syllabus, Articles of National and International standards, e-lectures of faculty of IITs, NPTEL, IS Codes, Textbooks, CD/DVDs, videos of Spoken English, video Films, Britannica & Microsoft Encarta, Psychometric Tests, Brain Treasures, Test Your IQ, books for preparing towards GATE, GRE, TOFEL, CAT etc. The College Library has huge Reference Section of various books. In addition, Personality Development Books, and several reference books are made available.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://docs.google.com/document/d/1JTMg-WM1 95wuA7S-cBZFkGhAESsMPQ6x/edit?usp=sharing&ou id=105062712823366765579&rtpof=true&sd=true

#### STUDENT SUPPORT AND PROGRESSION

#### **5.1 - Student Support**

# 5.1.1 - Number of students benefitted by scholarships and freeships provided by the Government during the year

1950

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File Description	Documents
Upload self-attested letters with the list of students receiving scholarships	<u>View File</u>
Upload any additional information	<u>View File</u>

# 5.1.2 - Number of students benefitted by scholarships and freeships provided by the institution and non-government agencies during the year

70

File Description	Documents
Upload any additional information	<u>View File</u>
Institutional data in prescribed format	<u>View File</u>

#### 5.1.3 - The following Capacity Development and Skill Enhancement activities are organised for improving students' capabilities Soft Skills Language and Communication Skills Life Skills (Yoga, Physical fitness, Health and Hygiene) Awareness of Trends in Technology

A. All of the above

File Description	Documents
Link to Institutional website	https://docs.google.com/document/d/1JTMg-WM1 95wuA7S-cBZFkGhAESsMPQ6x/edit?usp=sharing&ou id=105062712823366765579&rtpof=true&sd=true
Details of capability development and schemes	<u>View File</u>
Any additional information	<u>View File</u>

# 5.1.4 - Number of students benefitted from guidance/coaching for competitive examinations and career counselling offered by the institution during the year

210

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File Description	Documents
Any additional information	<u>View File</u>
Number of students benefited by guidance for competitive examinations and career counseling during the year (Data Template)	<u>View File</u>

# 5.1.5 - The institution adopts the following mechanism for redressal of students' grievances, including sexual harassment and ragging: Implementation of guidelines of statutory/regulatory bodies Creating awareness and implementation of policies with zero tolerance Mechanism for submission of online/offline students' grievances Timely redressal of grievances through appropriate committees

#### A. All of the above

File Description	Documents
Minutes of the meetings of students' grievance redressal committee, prevention of sexual harassment committee and Anti- ragging committee	<u>View File</u>
Details of student grievances including sexual harassment and ragging cases	<u>View File</u>
Upload any additional information	<u>View File</u>

#### **5.2 - Student Progression**

#### 5.2.1 - Number of outgoing students who got placement during the year

#### 557

File Description	Documents
Self-attested list of students placed	<u>View File</u>
Upload any additional information	No File Uploaded

#### 5.2.2 - Number of outgoing students progressing to higher education

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75

File Description	Documents
Upload supporting data for students/alumni	<u>View File</u>
Details of students who went for higher education	<u>View File</u>
Any additional information	No File Uploaded

# 5.2.3 - Number of students qualifying in state/ national/ international level examinations during the year

# 5.2.3.1 - Number of students who qualified in state/ national/ international examinations (e.g.: IIT-JAM/NET/SET/JRF/ GATE /GMAT /CAT/ GRE/ TOEFL/Civil Services/State government examinations) during the year

52

File Description	Documents
Upload supporting data for students/alumni	<u>View File</u>
Any additional information	No File Uploaded

#### 5.3 - Student Participation and Activities

# 5.3.1 - Number of awards/medals for outstanding performance in sports and/or cultural activities at inter-university / state /national / international events (award for a team event should be counted as one) during the year

0

File Description	Documents
e-copies of award letters and certificates	<u>View File</u>
Any additional information	No File Uploaded

### 5.3.2 - Presence of an active Student Council and representation of students in academic and administrative bodies/committees of the institution

The Student Council, whose term is of one academic year, consists of two representatives, one male and one female student from each class, monitored by Dean, Students affairs . The student council plans and organizes various co-curricular and extra-curricular activities of the college in association with the college academic

committee. Towards this end, various committees, namely, Organizing committee, Reception committee, Transport committee, Hospitality committee, Technical Events committee, Public Relations committee, Discipline committee, Cultural programmes committee, Sports committee, Prize Distribution committee, Magazine committee etc. which organize Orientation programme, Fresher's day, Alfamatica, Bhaswara, Vaisheshika, Vibgyor and Vibes. In addition, the college celebrates regional, national and international commemoration days and festivals wherein, student council members are involved in smooth conduct of the above events.

In each committee, one student representative acts as convener who convenes meetings as and when required and records the minutes of the meetings and forwards it to the Dean, Students affairs necessitating follow up action towards the smooth conduct of events. Each committee, further selects a group of student volunteers ensuring the necessary logistic support for successful execution of events.

Student Council also contributes for enhancement of the learning experiences of students through various clubs, namely, Literary, Science, Coding, Mathematical, Fine arts, Photography, Solar, Robotics, Environment, and Srujanastra.

Each club is managed by students with the help of a faculty advisor. Various events pertaining to the concerned club are organized after college hours on regular working days, as well as on Saturdays.

In addition, it also facilitates organization of various technical activities through professional bodies namely, CSI, IEEE, IETE, ISTE and SAE.

The Student Council assists in organizing NSS activities of the college, which include conducting various health camps, distribution of school uniforms, books etc for needy children of nearby villages, distribution of various items at old-age homes, facilitating training for development of vocational skills in the people in nearby places, etc.

In addition to the above mentioned activities, the Student Council provides necessary help by teaching certain courses to the students studying in nearby schools.

It also organizes awareness programmes on health, education and environment. In association with NGOs, the student council facilitates conduct of cataract surgeries, organizes health and

dental camps and distributes medicines to the needy. As a part of environment campaign, Handmade paper bags were made and distributed in the shops, making them aware of the hazards of plastic usage and its consequent disastrous effects on environment. Towards the promotion of Green revolution, every year, student council organizes tree plantation programmes in the nearby villages.

Further, anti-ragging committee, grievance redressal cell and women protection cell are formed with one or two student representatives nominated as members in each. The committees meet based on the requirements.

Entrepreneurship development cell of the college, which consists of student council members with a faculty advisor, organizes various events in association with the National Entrepreneurship Network (NEN).

Class review committees are formed with class representatives for obtaining feedback on Teaching-Learning process.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://docs.google.com/document/d/1NA0iSVyJ YL508E2ua7QF0iL8ed6gMvvC/edit?usp=sharing&ou id=105062712823366765579&rtpof=true&sd=true

#### 5.3.3 - Number of sports and cultural events / competitions organised by the institution

0

File Description	Documents
Report of the event	<u>View File</u>
List of sports and cultural events / competitions organised per year	<u>View File</u>
Upload any additional information	<u>View File</u>

#### 5.4 - Alumni Engagement

5.4.1 - The Alumni Association and its Chapters (registered and functional) contribute significantly to

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#### the development of the institution through financial and other support services

- Alumni members are made members of BOS of various departments.
   They contribute in the curriculum design. They examine the current curriculum and give suggestions vis-a-vis the industry requirements.
- They also give advice on the establishment of laboratories which involve experiments using modern tools for improved employability of students.
- Alumni members are invited to deliver technical talks and proved career guidance to the students.
- Alumni members help the students in establishing a network of support for their professional career progression, namely, higher education in India and abroad, internships and placements.
- Alumni working various industries connect the placement cell of the college to their respective industries, thereby, facilitate the college with opportunities for placements of students.
- In addition, they also connect the industry-institute interaction cell of the college facilitating industrial visits, internships for students and resource persons for student development and faculty development programs.
- Alumni promote the college at various fora, thereby serving as brand ambassadors of the college, by making the audience aware about the salient features of the college as well as important developments that have been taking place in the college over the years.
- Alumni working in various R&D establishments connect the faculty of the college to their professional seniors facilitating testing requirements of as part of research carried out by faculty and also in the preparation of research proposals being submitted by the college for various funding agencies.
- Alumni, who pursued higher education abroad, help the students in securing admissions in the universities where they have studied through preparation of statement of purpose, research projects and funds available with various professors in universities. This information is extremely useful for students, since, they can approach the professors by explicitly mentioning their research interests, which may perhaps improve their chances of securing scholarship with full or partial tuition fee waiver.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional Information	https://docs.google.com/document/d/1056Ng1Cc luIOH7PUJ4cQVHgIGn51elf3/edit?usp=sharing&ou id=105062712823366765579&rtpof=true&sd=true

# 5.4.2 - Alumni's financial contribution during E. <2 Lakhs the year

File Description	Documents
Upload any additional information	No File Uploaded

#### 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

The Vision and Mission statements of the institution are:

#### Vision:

Geethanjali visualizes dissemination of knowledge and skills to students, who would eventually contribute to the well being of the people of the nation and global community.

#### Mission:

- To impart adequate fundamental knowledge in all basic sciences and engineering, technical and inter-personal skills to students.
- To bring out creativity in students that would promote innovation, research and entrepreneurship.
- To preserve and promote cultural heritage, humanistic and spiritual values promoting peace and harmony in society.

The vision of the college envisages the students graduating from the college contributing to national development and to the well being of global community. The mission of the college is to produce technocrats equipped with sound knowledge in basic sciences and technical skills, human values, and zeal to serve the community,

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leading to realization of the vision.

Realization of the vision of the college calls for good governance, which requires establishment of structures and processes, designed to ensure accountability, transparency, responsiveness, equity, empowerment, and participation. In line with these needs, and as per the guidelines of UGC for autonomous colleges, the following statutory committees are constituted, which provide proper management of academic, financial, and general administrative affairs of the college.

- Governing Body
- Academic council
- Boards of studies
- Finance Committee

In addition, there are several non-statutory committees for specific functions to assist in the overall governance of the college. The college promotes a culture of participative management, extending down to the level of Assistant Professor, among the faculty.

The Principal of the college, as the head of the institution is vested with the overall responsibility to plan, organize, and control the academic activities, delegating authority to deans, heads of departments, committees and sections in-charge for carrying out the day to day functions of the institution.

The organization of the college is structured into departments/sections, and groups/divisions within the departments. To assist the Principal, Deans and HoDs in the performance of their functions, several committees are formed at the institutional and department levels, comprising the faculty at all levels. The committees are empowered to deliberate, investigate, and recommend actions on various issues that are referred to them. Thus, participation in decision making goes right down to Assistant Professors.

The perspective plan for the college is developed by the Planning and Monitoring Board, the broad parameters of which are indicated by the Governing Body. The perspective (strategic) plan is aimed at achieving the strategic goals of the college, which are set to align with its Vision and Mission. The strategic plan is translated into operational goals and plans for the departments, providing for achievement of targets in a phased manner over the plan period. Thus, all the planned activities at department level can be traced back or mapped to strategic goals derived from the Vision and

#### Mission of the college.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional Information	https://docs.google.com/document/d/16FuyElyu DmPUI-oH18054hZt52fXPxFN/edit?usp=sharing&ou id=105062712823366765579&rtpof=true&sd=true

# 6.1.2 - Effective leadership is reflected in various institutional practices such as decentralization and participative management

Geethanjali College of Engineering and Technology has a well laid practice of decentralization and participative management. Different committees, councils and cells are constituted viz., College Academic Council, Board of studies, Program Assessment Committee, College Academic committee, Research Committee and IQAC Cell etc. The roles and responsibilities of each committee/cell bearers and authorities and the structure of such organisational units are defined at the time of formation. A case study showcasing the practice of decentralization and participative management in the development of Course Outcomes, Course delivery methodology, Course attainments and Program Assessment is discussed below:

The objectives are accomplished with the participation and coordinated functioning of the faculty at different levels, their roles being as follows:

#### 1. Program Assessment Committee (PAC)

PAC consists of Head of the Department (Program Coordinator unless the department offers more than one program) as the chairperson and Senior faculty members. The committee meets at least once in each semester to review the progress of the program.

The committee monitors attainment of Course Outcomes (COs), Program Outcomes (POs) and Program Specific Outcomes (PSOs) with the major focus being the cumulative learning of the students undergoing the program.

- Program Coordinator- In association with senior faculty, oversees all the courses offered by the department;
  - Appoints Course Coordinators for each course offered and administered by the department;

- Reviews the performance of students undertaking courses offered by the department;
- Ensures College's quality assurance processes for assessment in courses along with Academic Regulations, are implemented;
- Course coordinators Discusses the course and its relationship to other courses within the program with the Program Coordinator
  - Develops course outcomes for the course
  - Schedules and conducts an orientation to the course for faculty, particularly who are new to the course.
  - Develops a meaningful and well-connected topic sequence and schedules the same in consultation with other course instructors involved in the course and ensures adhering to the same.
  - Develops valid and reliable methods to evaluate student learning outcomes
- 2. Class Advisers (Section Advisor) Discusses all potentially significant issues and establishes good communication with the students thereby making them fully aware of their responsibility to meet performance standards.
  - Conducts weekly reviews with Counsellors, monitors student progress and documents reviews to establish a record of trends in overall class performance.
- 1. Question Paper Evaluation Committee It consists of HoD, a few senior Professors Department IQAC representative and an invitee from other department. Chaired by the HoD, the committee examines the following:
  - Mapping of course outcomes to Program outcomes vis-à-vis the questions
  - Bloom's Taxonomy level
  - Discriminating power to distinguish bright and average student
  - Specific and precise nature of questions as well as uniform coverage of the content.

All the above clearly indicate decentralization at the department, wherein, faculty members participate not only in administering, monitoring the Teaching-Learning process, but also, in the evaluation and assessment of COs, POs and PSOs.

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File Description	Documents
Upload strategic plan and deployment documents on the website	<u>View File</u>
Upload any additional information	No File Uploaded
Paste link for additional Information	https://docs.google.com/document/d/1fSvvGpmc AntMMjJjAX9JkWL2AGooJuBV/edit?usp=sharing&ou id=105062712823366765579&rtpof=true&sd=true

#### 6.2 - Strategy Development and Deployment

6.2.1 - The institutional Strategic/ Perspective plan has been clearly articulated and implemented

Academic and Administrative Process for improved Teaching Learning (TL)

Teachinginvolvesplanning and implementation of instructional activities and learning experiences meeting intended learning outcomes. Towards this, a systematic and sustainable, academic and administrative process, practiced by the institute facilitating improved Teaching-Learning, is given below:

Workload allocation: completed in departments a month before the conclusion of the semester in progress. Senior most teachers allocated second and third year classes, take the first two periods, ensuring students attend college on time.

Tutorial sessions conducted with two faculty members, making instruction more effective.

Group/cooperative learning is often conducted with one period/week in courses not having tutorial sessions.

Quick and slow learners are identified, learning paced accordingly.

Mentoring is conducted motivating quick learners to take up projectbased learning, participate in co-curricular activities, explaining opportunities available for higher education. Slow learners are counselled to associate themselves with quick learners and provided remedial teaching.

Reduced class strength for improved TL: In ECE and CSE, each with 240 students, divided into five sections with 48/section instead of

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60/section.

A senior faculty designated as Course Coordinator, with expertise in the field, conducts meetings with other faculty teaching the same course, oversees progress of learning, and gives suggestions accordingly.

Feedback is obtained from students on TL of each course, twice a semester, first immediately after three weeks of commencement of the semester, faculty are counselled, if feedback < 70%, second, one week before conclusion of the semester, passed to respective faculty for necessary action.

Class review meetings are held, four times a semester, feedback obtained on TL, passed to faculty for needed adjustments.

Weekly reports on course progress are collected and reviewed necessitating action.

Faculty grouped as per Specializations in each department interact closely on various aspects pertaining to courses of the specialization for improved learning.

Course end survey, conducted at the conclusion of each course, facilitates necessary modifications, when offered next.

Attainment of Course Outcomes, Program Outcomes (POs) and Programme Specific Outcomes (PSOs) carried through assessment of examinations and indirect assessment.

A question paper evaluation committee in department evaluates question papers against various parameters, takes necessary actions, ensuring a balanced question paper.

Interaction with experts in the field through Guest Lectures, Industrial Visits, and Field trips is facilitated, making students familiar with occupational awareness, what engineers do, language and process of design, non-technical side of engineering, sustainable development etc.

Program Assessment Committee (PAC) meets at the middle of each semester, discusses problems encountered in TL of various courses, suggests remedial measures; again at the end of the semester, reviews performance of students and gives suitable suggestions for improved performance, when offered next. PAC also suggests value added courses, and other training programs including programming,

aptitude, soft skills and situational writing skills.

Graduate exit survey is conducted on POs and PSOs. Appropriate action is taken through curriculum modification for enhanced student performance of future batches.

Impact of all the above has been resulting in significant improvement in learning and considerable increase in employability in the last two years.

File Description	Documents
Strategic Plan and deployment documents on the website	<u>View File</u>
Paste link for additional information	https://docs.google.com/document/d/14ziOcoSOkLNIU q-Lx36MQKS5EmGtDnh/edit?usp=sharing&ouid=105062712823366765579&rtpof=true&sd=true
Upload any additional information	<u>View File</u>

6.2.2 - The functioning of the various institutional bodies is effective and efficient as visible from the policies, administrative set-up, appointment and service rules, procedures, etc.

The organogram of the institution depicts organizational structure of the college.

The Principal is Head of the Institution. Institute is organized into Academic & Administrative departments

The Governing Body, the apex statutory body, guides in the development of and approves the Vision, Mission, and Quality policy of the institution, gives direction to the institution and monitors its performance.

Other statutory bodies of the college are: Academic Council (AC), Boards of studies, and Finance committee.

The college has a number of non-statutory committees overseeing the function of

Library, Examinations, Grievance Redressal, IQAC, Women Protection Cell, Purchase, Anti Ragging, and Canteen. In addition, Planning & Monitoring Board is constituted to assist the Principal/Chairman in

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the administration of the college.

Dean, Academic, Prepares Academic Calendar with complete schedule of various activities, monitors progress of class work, student counseling/mentoring, directing and supervising student activity programs.

The Registrar (Dean, Administration) along with Dean, Academic assists Principal in administering and leading the college within the policy framework developed by AC and College Academic Committee, in the completion of administrative details and tasks required to maintain an efficient operational pattern for the college.

#### Controller, Examinations

Coordinates with external examiners, affiliating university officials and with all concerned in the college, ensuring smooth conduct of all examinations and evaluation, including timely declaration of results.

#### Dean, RD&C

Formulates research and consultancy policies of the institute, processes research and publications proposals submitted by faculty; recommends internal seed money and other forms of assistance for projects.

Identifies areas/institutes for rendering consultancy services.

#### Dean, SA

Facilitates/coordinates formation of student council, maintains student discipline, supervises anti ragging committee and conducts all extracurricular activities.

Dean, Industry Institute Interaction develops close links with various industries by interaction programs, facilitates MoUs with various industries

#### Dean, computing services

Oversees and facilitates all IT infrastructure requirements and arranges for smooth conduct of all IT enabled activities of the institute.

Dean, IQAC

Initiates and administers all quality initiatives of the college.

Arranges for conduct of internal and external academic and administrative audit.

Dean, CACHE

Oversees and administers all career guidance and development programs facilitating students acquire employability and career progression skills.

Dean, EDC

Facilitates the spirit of entrepreneurship by conducting entrepreneurial development programs, promoting flavor of entrepreneurship engulfing nascent minds of students.

Dean, IC

Nurtures the seed of creativity and innovation by fostering a culture of product development through prototypes resulting in entrepreneurship in the form of a start-up inviting and involving venture capitalists.

Dean, School of Computer Science and Informatics

Oversees smooth functioning of the departments of CSE, IT and CSE-Emerging areas, ensuring optimal utilization of all resources pertaining to these departments.

Dean, School of Electrical and Communication Engineering

Oversees smooth functioning of the departments of ECE and EEE and ensuring development of quality initiative measures for improving the employability of the students in core sectors.

HoD

Administers smooth conduct of all academic and administrative activities of the department.

In association with other BoS members, develops curricula for all programs administered by the department.

File Description	Documents
Paste link to Organogram on the institution webpage	http://www.geethanjaliinstitutions.com/engin eering/about-geethanjali.html
Upload any additional information	<u>View File</u>
Paste link for additional Information	https://docs.google.com/document/d/16gqLL6mx HPLAWBmxzQFl3j4gEVbFGcTj/edit?usp=sharing&ou id=105062712823366765579&rtpof=true&sd=true

# 6.2.3 - Implementation of e-governance in areas of operation: Administration Finance and Accounts Student Admission and Support Examination

#### A. All of the above

File Description	Documents
ERP (Enterprise Resource Planning) Documen	<u>View File</u>
Screen shots of user interfaces	<u>View File</u>
Details of implementation of e- governance in areas of operation	<u>View File</u>
Any additional information	<u>View File</u>

#### **6.3 - Faculty Empowerment Strategies**

6.3.1 - The institution has effective welfare measures for teaching and non-teaching staff and avenues for their career development/ progression

Provide the list of existing welfare measures for teaching and non-teaching staff in maximum of 500 words

The following schemes/benefits are offered by the institution, for the welfare and career development of the teaching and Non-teaching staff.

- EPF contribution by Management to all the eligible staff members
- Free Medical facility at the institute
- Free transport to administrative staff.
- Vehicles, and bus passes to Messengers.
- Public transport bus passes to all drivers.

- Special allowances to faculty deputed to Examination department.
- Need Based financial assistance to staff
- Cell-Phones and Laptops to HODs for better connectivity and networking
- CLs, HPLs, CCL, Medical Leave and Examination Leaves as per their eligibility.
- Paid Maternity Leave for female employees.
- o Special leave to staff on the occasion of their marriage.
- Health Awareness camps within campus and Free Medical Checkups.
- Fee concession to children of staff members who are studying in GCET.
- Sponsorship to faculty attending FDPs, Conferences etc.
- Canteen facility for students and staff.
- Uniforms, washing allowance for Attendants, Ayahs and Drivers.
- Paid leave @ one day/Week as incentive to faculty pursuing Ph.D.
- ESI benefit to all eligible employees.
- Salary advance for staff in times of need.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://drive.google.com/file/d/1mMpqcoC5o40 iUVHod2mFygDizoI-WydX/view

### 6.3.2 - Number of teachers provided with financial support to attend conferences / workshops and towards payment of membership fee of professional bodies during the year

18

File Description	Documents
Upload any additional information	No File Uploaded
Details of teachers provided with financial support to attend conference, workshops etc during the year (Data Template)	<u>View File</u>

### 6.3.3 - Number of professional development / administrative training programmes organized by the Institution for its teaching and non-teaching staff during the year

18

File Description	Documents
Reports of the Human Resource Development Centres (UGC HRDC/ASC or other relevant centres)	<u>View File</u>
Upload any additional information	<u>View File</u>

## 6.3.4 - Number of teachers who have undergone online/ face-to-face Faculty Development Programmes during the year: (Professional Development Programmes, Orientation / Induction Programmes, Refresher Courses, Short-Term Course, etc.)

660

File Description	Documents
Summary of the IQAC report	<u>View File</u>
Reports of the Human Resource Development Centres (UGC ASC or other relevant centers)	<u>View File</u>
Upload any additional information	No File Uploaded

#### 6.4 - Financial Management and Resource Mobilization

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

External financial audit: The college conducts external Financial Audit by a Chartered Accountant every year. The audit observations submitted to the management by the audit company are examined carefully and corrective actions taken, where required. The Financial statements, namely, income and expenditure account and balance sheet are filed with the income tax returns to the IT department every year. All the audit reports have been found to be in order, but for a few minor errors of omission due to oversight by the accounting personnel. These errors are rectified by way of checks and balances, strengthening financial accounting and budgetary control systems.

Internal financial audit: The college constitutes separate internal committee for conducting verification of assets/capital equipment and for financial audit. Audit of assets and capital equipment are conducted through stock verification by the committee and based on shortages reported, if any, action for write-off is taken with the approval of competent authority and the items are removed from the

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asset registers. Similar action is taken in respect of books/journals/documents. The internal audit committee, besides inspecting the books of account and records maintained by the finance department evaluates internal control system, particularly in respect of purchases, scholarships etc. The audit report is submitted to Principal/Chairman and subsequently Principal directs departments to take follow up action for closing the deficiencies and making changes in systems and procedures as called for.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	http://www.geethanjaliinstitutions.com/engin eering/img/downloads/Teja%20Edu%20Audit%20Re port.pdf

### 6.4.2 - Funds / Grants received from non-government bodies, individuals, and philanthropists during the year (not covered in Criterion III and V) (INR in lakhs)

0

File Description	Documents
Annual statements of accounts	<u>View File</u>
Details of funds / grants received from non-government bodies, individuals, philanthropists during the year	<u>View File</u>
Any additional information	No File Uploaded

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

Resource Mobilization Policy and Procedures

The policy of the college with regard to mobilization of funds is as follows:

The main source of funds for the college is the Tuition fee and other miscellaneous fees collected from the students.

The other sources of funds are:

1. Loans from banks in the form of term loans and operational/working capital loans, including overdraft

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facility

- 2. Unsecured loans from non-bank financial institutions
- 3. Grants received from Government bodies like AICTE, JNTUH, DST etc., for organizing faculty development programs, seminars, workshops, modernization of labs/workshops and execution of projects.
- 4. Institutional corpus fund

The fees collected from students as Examination fee for conduct of semester End Examinations in another major source of funds However, this income is meant for and is used exclusively to meet all examination related expenses.

Procedure: The accounts section of the college prepares, month-wise cash flow statements, two months in advance. The cash outflow statement is based on institutional budget estimates and additional inputs form departments for unanticipated major expenses, and contingency expenses. The cash inflow (income) statement is prepared based on the schedules for admissions, commencement of classes indicated in the Academic calendar, and examination time tables. The Accounts department notifies the fee payment schedules to students to alignment with cash requirements as per projected cash inflow statement. If there are indications of fee collection being short of estimates, vigorous efforts are made through academic department staff and fee counselor to increase the receipts. The gap between the actual income and the estimated expenses is bridged through loans from banks/non-bank financial institutions as per the policy guidelines.

Periodically, a review of the adequacy of limits for term and operational loans sanctioned by banks is carried out by the college management and the Principal. If the sanctioned limits are found to be inadequate, the banks are approached for enhancement of the sanctioned limits, with proper justification.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional Information	https://www.geethanjaliinstitutions.com/engineering/iqac.html

#### 6.5 - Internal Quality Assurance System

6.5.1 - Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing

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quality assurance strategies and processes visible in terms of incremental improvements made during the preceding year with regard to quality (in case of the First Cycle): Incremental improvements made during the preceding year with regard to quality and post-accreditation quality initiatives (Second and subsequent cycles)

1. Structuring of department for improved scholarly activities and ease of administration through decentralization.

Each department is structured into four/five groups as per specializations.

Each group is led by a Professor in the corresponding specialization, with 2/3 well experienced faculty identified as lead faculty.

Group Head along with lead faculty act as Mentors for other faculty of the group, interacting closely, guiding them in their academic and research pursuits.

Group head and lead faculty during their close interaction, identify overlapping components in the curriculum pertaining to their group and recommend for merger of courses, if any, as well as introduction of new courses including electives in emerging areas, and value added courses to the Board of studies.

This structure has been promoting a healthy mentor-mentee relationship among faculty, providing more learning opportunities for junior faculty.

It has also been facilitating in the creation of a fairly good talent pool and establishment of a second rung leadership in various specializations of the department providing value added teaching learning process and inculcating research culture, also enabling smooth administration/functioning of the department.

In addition, it has been facilitating identification of resource persons for conduct of Guest Lectures for FDPs and SDPs. With this structure, junior faculty have been able to identify research guides and platforms for publication of research work.

Junior faculty have also been able to associate themselves with all departmental/college's cultural, and other activities promoting a healthy collegial spirit among themselves, thereby facilitating the administration in the development of potential leaders and identification of talent.

The above structure, kept in place since January 2017, has been bringing in incremental improvements in the teaching-learning process of theory courses, laboratory instruction, project/problem based learning, research publications and patents filed.

#### 2. A systematic process for the holistic development of students:

College has established following centres for mentoring students to identify their potential and accordingly guides them in the realization of their aspirations.

Centre for Academic and Career Guidance:

It has been facilitating students realizing their career priorities and goals; providing them with skills needed to help manage their career throughout their professional life. Also, helping students assess their aspirations and capabilities through personalized mentoring and psychometric tests. In addition, students are advised regarding their career options, study opportunities and assisted accordingly.

Centre for Soft Skills Development: Facilitating students develop Communication skills, Positive attitude, Ethics and Integrity, Resilience, Adaptability, Self-regulatory skills, Interpersonal skills and teamwork, Leadership, Social Skills, and Etiquette.

Incubation Centre: Led by some faculty who served in IT and Electronics industry, students are facilitated with design, development and implementation of innovative projects, enabling them acquire design and analytical thinking skills. In addition, students develop business awareness with entrepreneurial outlook.

Training and Placements Cell: Facilitating training for placements, enabling students get placed through ON campus recruitment including pooled campus and OFF campus recruitments. By coordinating with industry-institute interaction cell of the college, providing students with industry visits, summer internships, LIVE project support for final year students selected through ON/Pool Campus drives.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://docs.google.com/document/d/1QTRqcPbi EPgm4h0j2xHjzQrb0wjcY_Nw/edit?usp=sharing&ou id=105062712823366765579&rtpof=true&sd=true

6.5.2 - The institution reviews its teaching-learning process, structures and methodologies of operation and learning outcomes at periodic intervals through its IQAC as per norms

A)Periodical Review of Teaching-Learning Process (TLP) by IQAC for attaining Learning Outcomes:

A detailed academic calendar that includes all academic activities is prepared well in advance before the beginning of the semester.

Course allocation is done based on the expertise of the faculty taking into account various considerations.

Timetables are prepared with dedicated time slots for regular class work, tutorials, remedial classes, seminar, mentoring, Training and Placement activities, etc.

Individual faculty members prepare Teaching plan indicating topics with correlation to the Course Outcomes (COs), Program Outcome (POs) and Program Specific Outcome (PSOs).

All faculty members submit Course files detailing various aspects that include Lesson plan and Laboratory plan for conduct of theory and laboratory sessions to their respective course coordinators/Group Head and Program Coordinator/Head of the department as the case may be in a well-defined format specified by IQAC, which is checked for content.

A detailed lesson plan with the following is prepared for each lecture session:

Outlining learning objectives and outcomes

Develop Introduction

Learning activities

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#### Collecting feedback on understanding

#### Summarization

The lesson plans are discussed during course coordinator's meetings with other faculty teaching the same course.

Curriculum is enriched with a couple of guest lectures, a few industrial visits and Internships.

Continuous monitoring of attendance and performance of students is done by class adviser, mentor and faculty teaching various courses for the class and students are apprised of the same during lectures, lab sessions, mentored and cautioned whenever necessary.

A continuous internal examination and evaluation system is kept in place.

In tune with the outcome-based education approach, the question papers for the internal class tests prepared are evaluated by a question paper evaluation committee, following Bloom's taxonomy, uniform distribution of questions vis-a-vis syllabus, enabling assessment of the attainment of Course Outcomes for each course.

Prompt communication sent to parents about their ward's attendance and performance through SMS.

Internal marks and student list with shortage of attendance are displayed on notice boards and parents are informed of the same.

Student feedback on TLP is taken twice in a Semester, one immediately after three weeks of instruction from the commencement of the semester, final just before conclusion of the semester through a structured questionnaire. It is reviewed by Head of the department, Dean, Academics and Principal and is communicated to faculty members. Faculty member with <70% feedback is counseled for improvement.

In addition, course coordinator meetings and class review meetings are conducted ensuring a certain degree of quality TLP across all sections for attaining outcomes.

Parent-teacher meeting is conducted twice a semester to enable discussion, obtaining parent feedback and taking improvement measures.

B)Monitoring of Programs through Feedback by IQAC and Peer Review by conducting Audit (Internal and External)

We believe that peer review of our programs through feedback and audit (internal and external) help in strengthening our programs. Hence feedback on several aspects is collected, analyzed and appropriate measures taken. We also conduct audit of our programs at the end of each academic year to sustain quality.

Towards this, our college's IQAC has designed a meticulously planned framework detailing various processes starting from course allocation, preparing course file, academic diary that contains record of classes conducted, topics discussed, student attendance record, mentoring book, weekly reports, class review meetings, and course coordinator's meetings with faculty teaching same course to various other sections, guidelines for designing experiments, conduct of laboratory sessions, allocation of student projects and preparing question paper, minutes of Question Paper Evaluation Committee, Program Assessment Committee, etc.

College Academic Committee periodically evaluates the effectiveness of TLP, pedagogical practices and processes outlined by IQAC. Students' learning in the form of knowledge absorption and content assimilation is regularly monitored by IQAC through an internal audit process:

Internal Audit: At Department

All faculty members maintain academic record book (attendance register of students) and record daily lectures delivered, tutorial sessions, if any, practical/laboratory sessions conducted and other such activities performed.

The academic record is periodically monitored by Course Coordinator/Group Head/HoDs by checking topics covered by faculty member.

On the basis of this report, if syllabus coverage is not progressing satisfactorily as per schedule, the concerned faculty is advised to take extra classes to cover syllabus in time, which is ensured.

The Head of the Department reviews the various academic activities during the department meetings and guides faculty members accordingly.

#### At College

IQAC has prepared a format to conduct internal academic audit across various departments after the conclusion of each academic year.

The internal audit is conducted through senior faculty drawn cross/inter-departmental to evaluate efficacy of college's TLP and associated administrative aspects and reports on the findings of the committee are submitted, which are forwarded to the departments for taking necessary action. Departments subsequently submit Action Taken Report (ATR) to IQAC, which verifies against the findings submitted earlier, and if found satisfactory, files it, else departments shall be informed to take appropriate measures.

#### External Audit

The college's IQAC has started administering external audit since the academic year 2018-19 by inviting senior academicians, with one for each department from other autonomous reputed colleges. Over and above, a former Principal/Dean of a reputed college is invited as the chairperson of the external audit team. External expert team visits all departments conducts audit for one complete day on the performance of the college's TLP and associated administrative aspects as per the given format, shared at least a few weeks prior to the visit of the team. The team submits its report and departments take appropriate action on the findings of the report by submitting compliance.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	https://docs.google.com/document/d/1Ml23Y0M9 XnH3C5lB8h06Wu9mcx2lzQsK/edit?usp=sharing&ou id=105062712823366765579&rtpof=true&sd=true

6.5.3 - Quality assurance initiatives of the institution include Regular meeting of the IQAC Feedback collected, analysed and used for improvement of the institution Collaborative quality initiatives with other institution(s) Participation in NIRF Any other quality audit recognized by state, national or international agencies (such as ISO Certification)

A. Any 4 or all of the above

File Description	Documents
Paste the web link of annual reports of the Institution	https://docs.google.com/document/d/1CZ5vLNfj CHFP5 mDbwqYOi-uh4WrOgT0/edit?usp=sharing&ou id=105062712823366765579&rtpof=true&sd=true
Upload e-copies of accreditations and certification	<u>View File</u>
Upload details of quality assurance initiatives of the institution	<u>View File</u>
Upload any additional information	<u>View File</u>

#### INSTITUTIONAL VALUES AND BEST PRACTICES

#### 7.1 - Institutional Values and Social Responsibilities

7.1.1 - Measures initiated by the Institution for the promotion of gender equity during the year

Description of gender equity & sensitization in curricular and cocurricular activities:

The Institution has defined procedures for gender equity and sensitization in curricular and co-curricular activities. Gender equity is observed and visualized in all Curricular, Co-curricular, and Extra-curricular activities conducted every year in this Institute.

1. Support from academic program: 'Gender Sensitization' has been introduced in the year 2016 to all undergraduate students of this Institution and has become a part of our curriculum. Interactive sessions of this course spreading over the entire semester manifest the impetus of course contents. As part of our academic programme, students of both gender participate in various curricular namely, laboratory work, internships, mini and major projects, technical and project seminar, wherein, they cooperatively and collaboratively work together. During this period, they are made to understand the behavioral nuances of working with the opposite gender. In particular, male students are made to understand the gynecological problems that women face and are advised to support them accordingly. Case studies are discussed about sharing of domestic work since most of the present day women are also working and face similar work pressures like men. Students are also advised to maintain a healthy distance so that the women

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do not feel embarrassed at any point of time. Further, students are also counseled not to discuss topics that may have gender bias leading to unpleasant situations.

2. Support from extracurricular activities:

Students participate in various extracurricular activities such as 36 hour Hackathons, IEEE's 24 hour programming contest, project exhibitions, paper and poster presentations etc. In all these activities, students form groups involving both genders, which would facilitate them in understanding the sensitivities of working with the opposite gender.

- 1. Support from non-academic bodies:
- 1. IEEE Women in Engineering (WiE) affinity group was established in the college in 2016. Gender equity and sensitization, the process of creating awareness and promoting equality among all genders, have been achieved through several awareness programs organized. Twelve awareness programs have been conducted since the inception of WiE, aiming at performing and practicing 'Gender equity and sensitization'.
- 2. Women Protection Cell (WPC): This cell has been in existence since 2015 and is reconstituted every two years. The latest constitution was in the academic year 2020-21. WPC comprises twelve faculty members, structured with a Presiding officer, one external member and ten members with representation from all the departments. This cell periodically meets and reviews the complaints received from female faculty and students if any, in particular, cases involving harassment of women. WPC enquires the complaints raised and recommends disciplinary action. Apart from punitive actions, WPC creates awareness on preventive measures by conducting workshops and seminars sensitizing all concerned.
- 3. Safety and Security of women: Women security personnel are recruited in the college to support female faculty, staff and students. All prominent locations of the campus are under CCTV surveillance. Women have been provided with separate waiting rooms and telephone numbers of SHE-TEAMS of Hyderabad police, suggesting them to take necessary help as and when needed.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional Information	https://docs.google.com/document/d/1T5Ns9KNZ zxZaE4xBsILRiZ7MqkPYQZWP/edit?usp=sharing&ou id=105062712823366765579&rtpof=true&sd=true

### 7.1.2 - The Institution has facilities for

C. Any 2 of the above

alternate sources of energy and energy conservation: Solar energy Biogas plant Wheeling to the Grid Sensor-based energy conservation Use of LED bulbs/ powerefficient equipment

File Description	Documents
Geotagged Photographs	<u>View File</u>
Any other relevant information	<u>View File</u>

7.1.3 - Describe the facilities in the institution for the management of the following types of degradable and non-degradable waste (within a maximum of 200 words)

The institute's operations result in generation of waste which can be broadly classified as:

- 1. Solid Waste
- 2. Liquid Waste and
- 3. E-Waste

The institute's practices with regard to storage and disposal of waste are described below.

#### Solid Waste Management:

The solid waste generated in the institute includes rubber tyres, metal scrap, paper, plastics, old newspapers, used papers and journal files: These are segregated, stored separately and given away to scrap dealers, twice in a year.

Apart from dry solid waste, food waste from canteens is collected by authorized agents for use as cattle feed.

#### Liquid Waste Management:

The liquid waste generated in the institute includes sewage, laboratory, and canteen effluent waste. which are discharged to Keesara Mandal Drainage System.

E-Waste Management: Electronic waste is created when an electronic product is discarded after the end of its useful life, such as computer systems, monitors etc.

Old computers and LCD Projectors are transferred to the Government schools, which are located in Cheeryal, Yadgarpaly and nearby villages which will help the students studying in them.

All the miscellaneous e-waste such as CDs, Batteries etc. are delivered for safe disposal through dealers in electronic goods.

File Description	Documents
Relevant documents like agreements/MoUs with Government and other approved agencies	<u>View File</u>
Geotagged photographs of the facilities	<u>View File</u>
Any other relevant information	No File Uploaded

7.1.4 - Water conservation facilities available in the Institution: Rain water harvesting Bore well /Open well recharge Construction of tanks and bunds Waste water recycling Maintenance of water bodies and distribution system in the campus

A. Any 4 or all of the above

File Description	Documents
Geotagged photographs / videos of the facilities	<u>View File</u>
Any other relevant information	No File Uploaded

#### 7.1.5 - Green campus initiatives include

- 7.1.5.1 The institutional initiatives for greening the campus are as follows:
- B. Any 3 of the above
- 1. Restricted entry of automobiles
- 2. Use of bicycles/ Battery-powered vehicles

- 3. Pedestrian-friendly pathways
- 4. Ban on use of plastic
- 5. Landscaping

File Description	Documents
Geotagged photos / videos of the facilities	<u>View File</u>
Various policy documents / decisions circulated for implementation	<u>View File</u>
Any other relevant documents	No File Uploaded

#### 7.1.6 - Quality audits on environment and energy undertaken by the institution

7.1.6.1 - The institution's initiatives to preserve and improve the environment and harness energy are confirmed through the following:

D. Any 1 of the above

- 1. Green audit
- 2. Energy audit
- 3. Environment audit
- 4. Clean and green campus recognitions/awards
- **5.** Beyond the campus environmental promotional activities

File Description	Documents
Reports on environment and energy audits submitted by the auditing agency	<u>View File</u>
Certification by the auditing agency	<u>View File</u>
Certificates of the awards received	<u>View File</u>
Any other relevant information	No File Uploaded

7.1.7 - The Institution has a disabled-friendly and barrier-free environment: Ramps/lifts for easy access to classrooms and centres Disabled-friendly washrooms Signage including tactile path lights, display boards and signposts Assistive technology and facilities for persons

A. Any 4 or all of the above

with disabilities: accessible website, screenreading software, mechanized equipment, etc. Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading materials, screen reading, etc.

File Description	Documents
Geotagged photographs / videos of facilities	<u>View File</u>
Policy documents and brochures on the support to be provided	<u>View File</u>
Details of the software procured for providing assistance	<u>View File</u>
Any other relevant information	No File Uploaded

7.1.8 - Describe the Institutional efforts/initiatives in providing an inclusive environment i.e. tolerance and harmony towards cultural, regional, linguistic, communal, socio-economic and other diversities (within a maximum of 200 words).

Our college organizes co-curricular and extra-curricular activities to promote various skills in students, create awareness and emphasis importance of empathy-oriented compassion, cultural, regional, religious, linguistic and communal tolerance needed in a highly pluralistic society.

Geethanjali has established several student clubs viz. Fine arts club, Photography club, Environmental club etc. which have been conducting various activities that have been playing a vital role in promoting and building an inclusive environment in the institution.

Mandatory courses in curriculum, namely, Environmental science, Human Values and Professional Ethics help students in understanding the importance of sustainable development.

Traditional day is observed as a celebration of India's diverse culture, wherein, faculty, staff and students wear traditional attire symbolizing their home state, promoting awareness of various cultures prevalent in Indian society.

GCET celebrates National Festivals, Independence Day, Republic Day and commemoration days of eminent personalities by conducting Blood

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Donation camps, Orientation Programs, explaining the importance and benefits of community service involving both faculty and students. We also conduct several games, sports, debates, essay writing competitions on important National days, signifying their importance, wherein students participate in large numbers.

All these activities have been helping students exhibit tolerance and harmony towards cultural, regional, linguistic, and communal aspects.

File Description	Documents
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	<u>View File</u>

7.1.9 - Sensitization of students and employees of the institution to constitutional obligations: values, rights, duties and responsibilities of citizens:

We at Geethanjali strongly believe in Maslow's theory of motivation, which at the highest level of its pyramid specifies "Self-Actualization", the purpose of existence of human life in this world is to serve mankind. Towards this, we consider education in general and higher education in particular, is to facilitate realization of human potential by making its stakeholders, particularly students, teachers, and higher educational administrators conscious of human values and societal development.

Geethanjali College of Engineering and Technology (GCET) believes that involving students in activities pertaining to strengthening core values help them in becoming responsible citizens.

In this context, we have been organizing blood donation and free vaccination camps, medical camps, giving infrastructural support for the physically challenged (through ramps, lifts, large washrooms, wheelchair facility etc), and student induction programs through volunteering. Apart from this, a sense of security is also built through Women Protection cell and Anti ragging committees established at GCET.

We believe that human values may be innate as well as acquired. When we have love, compassion and a willingness to sacrifice our interests for others, it becomes a service. Values are to be learnt through practices. Hence, we at Geethanjali bear in mind that we are

being watched and observed by peers and conduct ourselves as role models for others. Inculcation of Human Values is demonstrated first by teachers and imbibed by the student later. Faculty members participate in Universal Human Values programs sponsored by AICTE. Courses on "Human Values and Professional Ethics", and "Indian Ethos" delivered through YouTube videos, real life examples, case studies and anecdotes are presented giving rise to various perspectives on situations in life, creating an everlasting impression on student's mind, touching student's heart, bringing a paradigm shift in their thought process towards life. They are largely instrumental in bringing integrity, competence and building a stronger character.

Formal and informal, co-curricular and extracurricular activities facilitate students to assume higher responsibility, thereby rising to the occasion with goals oriented towards societal development. Students develop an attitude to look at every challenge as an opportunity to improve or innovate for societal benefits.

Student mentoring is a well-designed and planned activity wherein the student is continuously supported and guided focusing on building student's character, with an objective of making student behave as a responsible citizen.

The college has been facilitating holistic development of students towards a more balanced life, profession and happiness, by encouraging them to interact with a galaxy of personalities from various walks of life. We have been organizing technical symposia, project exhibitions, activities through student clubs, celebrations of national and international commemorative days, events and festivals promoting holistic development of students thereby making them become not only technically sound professionals contributing to technological advancements, and growth of the economy, but also become "Good Global Citizens" promoting peace and harmony in the Society for sustainable development of mankind.

File Description	Documents
Details of activities that inculcate values necessary to transform students into responsible citizens	<u>View File</u>
Any other relevant information	No File Uploaded

7.1.10 - The institution has a prescribed code A. All of the above of conduct for students, teachers, administrators and other staff and conducts

periodic sensitization programmes in this regard: The Code of Conduct is displayed on the website There is a committee to monitor adherence to the Code of Conduct Institution organizes professional ethics programmes for students, teachers, administrators and other staff Annual awareness programmes on the Code of Conduct are organized

File Description	Documents
Code of Ethics - policy document	<u>View File</u>
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programmes, etc. in support of the claims	<u>View File</u>
Any other relevant information	No File Uploaded

### 7.1.11 - Institution celebrates / organizes national and international commemorative days, events and festivals

The vibrant student clubs, and centers of the college conduct many National and International commemorative days, events and festivals. The gaiety of all Festivals, both National and International are celebrated enthusiastically keeping in mind the traditions of the Indian Diaspora and Environmental Protection. The jubilations encourage in sensitizing the young minds to foster a spirit of Multiculturalism. Snippets of a few events celebrated are given hereunder.

#### International:

World Environmental Day (June 5). The Environmental Club of the college systematically hosts programs to enlighten the students about restoration and protection of Nature for environmental sustainability through Tree Plantations and "Save Energy" campaign. Special drives, namely, Haritha Haram, making Eco-friendly Vinayaks, Earth Day etc. are organized. Young engineers share their thoughts in Debates, Essay Writing, Group Discussions, Poster Presentation and Slogan Writing Competitions held during these celebrations.

International Women's Day (March 8). The tremendous Women Power is honored on International Women's Day in tune with the global

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celebrations. Students are sensitized to "Gender equality" through some short video presentations. Successful women from all fields are invited to inspire the young minds.

International Yoga Day (June 21). Students are motivated to live up to the legacy of our culture. Eminent Yoga instructors are invited to guide the participants to practice the asanas and lead healthy and joyful life. Yoga competitions are conducted for faculty and students.

World Photography Day (August 19). The Photography Club of the college plays an active role in organizing this day annually. The budding engineers share their best photographic shots and celebrate this day by exhibiting the same.

#### National Events:

Independence Day (August 15) and Republic Day (January 26). The campus echoes with music professing the sacrifices made by our freedom fighters to instill and ignite a spirit of patriotism in the young minds. Tributes are paid to people behind the framing of our Constitution and it's ethos are shared through some inspiring speeches and celebrations. We conduct events commemorating sacrifices of great personalities.

National Science Day (February 28). Vaisheshika - Science Day is celebrated to pay homage of our country's first Nobel laureate in Science, Sir CV Raman, to inculcate the scientific temper in young minds. To this end, an exhibition is conducted, wherein, students participate in large numbers and demonstrate Working/Demo Models, Poster Presentations, etc.

National Mathematics Day (December 22). Commemorating the birth anniversary of mathematical legend Sri Srinivasa Ramanujan to promote analytical and logical reasoning skills, quizzes, Advanced Sudoku, Rubik's Cube competitions are conducted.

Teacher's Day (September 5). The Birth Anniversary of Dr. S. Radhakrishnan, is celebrated as Teacher's Day, with great enthusiasm. Students express their deep sense of gratitude on Teachers' contribution for the cause of education through anecdotes.

Engineer's Day (September 15). The Birth Anniversary of Sir Mokshagundam Vishveswaraya is celebrated as Engineer's Day. Various competitions are held for students offering an opportunity to showcase their Engineering Skills through the Projects they have executed. The philosophy is to motivate young budding Engineers to emulate Sir Vishveswaraya, lauding his service to our city-Hyderabad.

File Description	Documents
Annual report of the celebrations and commemorative events for during the year	<u>View File</u>
Geotagged photographs of some of the events	<u>View File</u>
Any other relevant information	No File Uploaded

#### 7.2 - Best Practices

7.2.1 - Provide the weblink on the Institutional website regarding the Best practices as per the prescribed format of NAAC

Title of the practice

Reduced class strength for improved student learning and employability

Objectives / intended outcomes of this "best practice" and what are the underlying principles or concepts of this practice (in about 100 words)?

Objectives of the Practice

Increased student-teacher interaction

Quicker feedback through better assessment from instructors

Enhanced learning experience for students through improved participation, especially in labs

More opportunities to learn from peers, augmenting collaborative and cooperative learning

More discipline and control over the class leading to increased student engagement

Underlying Principles

Faculty devote more time for thorough assessment of students'

assignments, laboratory and project work and providing feedback.

With increased interaction among classmates, students gain quality learning experience.

More comfortable seating posture, more room to manoeuvre and more personal space, could lead to higher levels of student focus, eventually lead to higher levels of student performance.

What were the contextual features or challenging issues that needed to be addressed in designing and implementing this practice (in about 150 words)?

We at Geethanjali College of Engineering and Technology (GCET) wanted to have a class size of 40 students for improving students' capabilities. However, this requires higher infrastructure as well as faculty numbers to be increased by 50%. Unfortunately, constraints in the fixation of tuition fee make it financially unviable and therefore infeasible to have such smaller class sizes.

Keeping this in view, as a compromise, in CSE and ECE classes, each having 240 students, we have reduced the class strength to 48 students per section instead of the normal 60 students per section.

This has forced us to increase the number of faculty by 25% increasing expenditure on salaries of these two departments by more than 1.5 crore rupees/year. Over and above, operational expenditure of labs, in terms of consumables, equipment maintenance and repair, and electricity charges has increased. Expenditure on civil infrastructure and class room furniture also increased.

Describe the practice and its uniqueness in the context of India higher education. What were the constraints / limitations, if any, faced?

It's an established fact that students learn faster and perform better in smaller classes. A class size of about 30-40 students results in more individual attention, increased participation, and better communication between instructor and students. Students receive feedback quickly from peers and instructors, encounter more opportunities for hands-on learning than in large classes with 60 and more.

A few of us studied and worked abroad, have experienced that coursework in a class with lesser number of students is adapted to fit the needs of students. As already mentioned, we have kept our class size 48 instead of 60. Most of the colleges and universities in our country have 60 in a class.

Our classes have three-seater benches with six rows and four columns capable of accommodating 72 students. However, we have ensured the middle seat is kept vacant in each bench ensuring students have a more comfortable seating posture needed since students spend nearly 6/7 hours a day. This eliminates noise in classroom since opportunities for students to have cross talk is almost negligible as instructor can easily identify if anyone is talking and would have more control of the class, maintaining discipline and promoting better learning.

Due to reduced strength, instructors get to know students faster, tailor pedagogy catering to learning styles of a good number of students.

Reduced class strength is more conducive, facilitating hands-on assignments, particularly in labs, wherein just two students work at a workbench, instead of usual three, enhancing learning experience considerably.

Smaller classes encourage students, get involved in learning, sharing ideas, thoughts and views with peers and instructors, benefit from a more thorough assessment of their work, receiving feedback.

Students have a better chance to get to know classmates benefiting from their comments on assignments and presentations. Further, each student's contribution is acknowledged, particularly in discussion settings and learns from one another based on the contributions they make during class.

Reduced class size benefits slow learners and disadvantaged students with rural background. Facilitates improvements in student engagement, lower drop-out rates, better non-cognitive skills, promotes persistence and self-esteem among learners.

Greater individualization of instruction, better classroom control and, thus, better learning ambience. Instructors have individual interactions with students, consulting with parents, giving greater attention to students' work. Class size is an important determinant of student outcomes.

#### Constraints/Limitations:

Class size reduction involves recruitment of more teachers, requires additional infrastructure, operational expenditure and is quite expensive.

#### Evidence of Success

Provide evidence of success such as performance against targets and benchmarks, review/results. What do these results indicate? Describe in about 200 words.

Ever since 2016-17 academic year, we have kept our class size as 48, our graduate outcomes have improved.

More students have been participating in various co-curricular activities, namely, in Project/ Problem-based learning, paper/ poster presentations, incubation centre activities, Hackathons, programming contests and student club activities.

Students have designed and built several prototypes, developing collaborative and cooperative learning in groups, discussing ideas, exchanging views and thoughts, evolving ways to resolve conflict and reach agreement, becoming aware of feelings of members in a group, listening to ideas of others with open mind and respecting each other's views even if they don't agree with others.

With a smaller class size, students' group sizes are smaller, paving way for increased involvement and participation in group work, led to higher levels of student focus, resulting in higher levels of student performance. Students got more opportunities to interact with instructor obtaining feedback more frequently.

Reduction in class size has facilitated reduced workload on instructors and mentors as they need to assess lesser number of students' work, mentor lesser number of students resulting in instructor spending quality time with them ensuring better and improved learning experience for students resulting in enhanced graduate outcomes and employability.

Problems Encountered and Resources Required

Please identify the problems encountered and resources required to implement the practice (in about 150 words).

We have tried to implement smaller class sizes in CE, EEE, ME and did so for one academic year. Unfortunately, number of admissions in CE, EEE and ME has been a bit low in first year. However, lateral entry students join in second year filling the vacant seats of first year. When dividing sections in second year, distribution of students in order of merit into third section needed students grouped earlier to be divided further. Parents and students complained as students by then have developed friendship with some and were reluctant to move to other section. Hence, we had to discontinue this in above disciplines.

More civil infrastructure in terms of class rooms, faculty cabins/cubicles and furniture is required, so also, more quality faculty, especially senior instructors for second year and third year classes of increased sections due to reduction of class strength. Obviously, more financial resources are needed. Unfortunately, salary of additional faculty is not considered while fixing tuition fee.

Mentoring - supporting students' professional and personal development

#### Objectives

- To identify mentee's strengths, weaknesses, thereby empowering mentee overcome weaknesses, enhancing strengths, and encouraging professional and personal development.
- To give mentee an overview of engineering profession, gain a
  deeper understanding of engineering by relating it to daily
  life, explore possible career paths and opportunities,
  encourage student build required skills, self-confidence
  through accomplishments, work towards reaching his/her
  aspirations and become a strong professional

#### Underlying Principle:

Mentor ensures mentee develops trust in their relationship, listens with empathy, respects uniqueness of mentee, influences through

constructive feedback and empowers mentee to make right decisions towards reaching mentee's professional and personal goals.

What were the contextual features or challenging issues that needed to be addressed in designing and implementing this practice (in about 150 words)?

Each mentor adopts 15-20 students, monitors student's learning, identifies quick and slow learners. Initiates remedial measures for learners falling below desired standards, brings them up, ensuring student's aspirations of securing degree with well-paid job. Quick learners are motivated explaining opportunities that galore, provide guidance, focusing on career planning based on mentee's identified goals.

Periodic reviews are conducted for students experiencing academic difficulties, identifying gaps in their understanding and knowledge, reviewing pre-requisite skills, informally discussing non-academic matters also, building an atmosphere of trust, allowing student to self-assess his/her strengths and weaknesses and providing advice.

Challenges are, faculty with mentoring capabilities are less although they are trained on conduct of mentoring, which is overcome to some extent through a departmental structure to mentor faculty. In spite of this, a good number of students often are reluctant to discuss about their difficulties. Further, due to mushrooming of engineering colleges, students' motivation is low.

Describe the practice and its uniqueness in the context of India higher education. What were the constraints / limitations, if any, faced?

Our mentoring system offers advice on an individual basis on academic and career development issues. Created a mentoring action plan reflecting different professional development needs at various stages of the student's college study.

A two week "Orientation Program" facilitates student in adjusting/adapting to the college environment.

Further, we discuss importance of the following with mentees:

Attending all classes, doing homework/assignments, regular study of three hours/day, participation in class activities such as tutorials, learning in groups, etc. and their implication to do well in examinations and also in career.

Laboratory exercises, mini and major projects, how they reinforce theoretical concepts, necessity of acquiring programming and logical thinking skills, required for securing a good job, citing the trend of enormous increase in costs of education and health care the student may have to provide, for his/her family's future needs.

Fast-changing technological developments, job profiles/roles, skills needed, diminishing opportunities for unskilled personnel, and availability of abundant opportunities only for skilled and talented professionals.

Problem solving, inquisitiveness, self-learning ability, Self-supervision, Punctuality, prioritizing work, Written and Oral Communication, Pro-activeness, team-work and Leadership Skills.

Participation in Project exhibitions, Programming/coding contests, Internships, Literary competitions, Technical Seminar/Poster Presentations, and Entrepreneurship activities, which help build student's professional career

Importance of "Life Long Learning", advising them to cultivate the habit of wide reading, covering diverse areas from English literature to anthropology, etc. to succeed as a professional.

Offer career guidance programs, provide assistance and resources on individual basis, help formulate career plans, providing exposure to infinite possibilities likely to arise in future, enable students acquire skills, abilities and confidence to transit successfully to further studies/work/self-employment.

#### Constraints:

Some faculty do not possess adequate mentoring capabilities; many of them have graduated from colleges with low reputation and their peer group's quality is found wanting, resulting in their low articulation skills, thus their inability to attract students towards mentoring. Our up-bringing of children is such they don't openly discuss issues concerning to them either with parents or with mentors. In addition, a good number of students hailing from rural background, feel shy and have apprehensions discussing issues.

#### Evidence of Success

Provide evidence of success such as performance against targets and benchmarks, review/results. What do these results indicate? Describe in about 200 words.

Mentoring resulted in improved attendance, class participation, and performance in examinations. Mentees' mathematical ability, problem solving, self-learning, articulation abilities and punctuality in fulfilling tasks with pro-activeness also improved.

Mentoring system implemented in the college has been resulting in improved graduation rates within the stipulated duration of four years, lower drop outs, improved student participation in various activities, namely, project exhibitions, Hackathons, programming/coding contests, creative writing competitions, technical seminar/poster presentation competitions, winning prizes in events organized at many national/international fora. The number of students undergoing internships and project works in industries has improved significantly. Group/collaborative learning activities have improved leading to the development of some working prototype models with a couple of them getting filed as patents, and are proposed for conversion into products. The number of placements offers and number of students opting for higher education in India and abroad has a significant rise over the last few years. More students are involving in professional society activities and are also undergoing Business English certificate course resulting in improvements in scores of IELTS and GRE. A good improvement has been observed in the students getting themselves acquainted with the latest technological developments indicating a substantial change in their attitudes.

File Description	Documents
Best practices in the Institutional website	https://www.geethanjaliinstitutions.com/engineering/img/downloads/igac-bp2020-21.pdf
Any other relevant information	Nil

#### 7.3 - Institutional Distinctiveness

7.3.1 - Highlight the performance of the institution in an area distinct to its priority and thrust (within a maximum of 200 words)

The first PEO of all our undergraduate programs is gainful employment or pursuit of higher education. Gainful employment is essentially facilitating students in securing a well-paid job while studying in college, which we are coining it as Campus Placements. This is an area of utmost priority for any college and is the case for us too.

Employers look for Problem solving, critical thinking, logical reasoning, programming skills and other 21st century skills in fresh engineering graduates. To enhance these skills, we roped in a third-party vendor to train the students for IT and IT enabled service ITES companies namely, Wipro, TCS, Cognizant, Accenture, etc. To cater to the skills required for product-based companies namely, Amazon, Microsoft, DE Shaw etc. another third party with proven track record, was roped in to impart the required skills.

Around 150 students were trained to enhance their advanced data structures, algorithms and problem-solving skills since the academic year 2020-21. The impact of this advanced training program is clearly visible in the increased number of placements for (2017-21) batch. in product-based companies.

It is observed that providing customized training, as per the industry needs and skills has helped students to get placed in higher numbers.

#### Part B

#### **CURRICULAR ASPECTS**

#### 1.1 - Curriculum Design and Development

1.1.1 - Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which are reflected in Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) of the various Programmes offered by the Institution.

After achieving autonomous status, the Governing Body of the college advised the college to design its own curriculum. Towards this end, Academic Council (AC) of the college was constituted as per norms of the UGC, which in turn constituted Board of Studies (BoS) of each department as per norms of UGC, which perused the existing curriculum of the affiliating university, its guidelines and academic regulations along with those of other reputed institutions including a few well known universities abroad, keeping in view, the main frame of the program structure and the syllabi within the framework of the norms stipulated by UGC and AICTE.

While preparing curriculum and subsequent revisions, each BoS considered the vision and mission of the college along with the respective department's vision and mission, then the same was put up before the College Academic Council. Their inputs were taken for further revision, as needed, so that the institutional vision and mission are reflected in each program offered by the college.

BoS took inputs from all stakeholders, namely, industry, R&D establishments, members of professional bodies, alumni, faculty of the college, government and community.

Based on the Vision and Mission of the college, respective departments with their already established vision and mission, proposed their Program Educational Objectives (PEOs), Program Specific Outcomes (PSOs), Program Outcomes (POs) which are generic, given by NBA.

Subsequently, towards Curriculum Design, each department adopted the following steps:

Identified the context of the program

Prepared PO-PEO matrix to ensure POs facilitate realization of PEOs.

Selected the number of credits for the program based on AICTE and UGC norms, and decided distribution of Credits

Identified the courses to meet the stated POs and PSOs

Wrote the PO-CO (Course Outcome) matrix

Defined assessment processes

- The curriculum was designed to facilitate students obtain liberal education, which has the potential to broaden their perspective and transform the world.
- Curriculum design was based on Outcome Based Education –
   Choice Based Credit System (of course with limitations)

Salient features of the curriculum

- Liberal and holistic education potential to broaden students' perspective and transform the world. The curriculum offers various designated courses namely,
- 1. Core: Basic Sciences, Engineering Sciences, Humanities and Social Sciences and Engineering.
- 2. Electives: Soft Core with a lab component, Professional, Open Electives (Including Foreign Languages)
- 3. Employability Skills
- 4. Mandatory courses, including Environmental studies, Human Values and Professional Ethics

All the above courses facilitate student with liberal and holistic education: aimed at promoting employability, value education and citizenship roles.

- Experimental learning is given due weightage
- Each semester Five theory and Three lab, except in two semesters out of Eight Semesters
- Project work is given due weightage
- The introduction of Open Elective courses along with Foreign Language promotes the philosophy of liberal education.
- Academic flexibility is maintained through a wide range of courses offered across departments.

Inputs from industry, R&D establishments, professional bodies, government and community have facilitated adequate relevance to the local, national, regional and global developmental needs.

File Description	Documents
Upload additional information, if any	<u>View File</u>
Link for additional information	https://docs.google.com/document/d/1rmxhke QS7rnD6tjnB07G7ziocrIgm2Hs/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true

#### 1.1.2 - Number of Programmes where syllabus revision was carried out during the year

08

File Description	Documents
Minutes of relevant Academic Council/BOS meeting	<u>View File</u>
Details of syllabus revision during the year	<u>View File</u>
Any additional information	No File Uploaded

### 1.1.3 - Number of courses focusing on employability/entrepreneurship/ skill development offered by the Institution during the year

204

File Description	Documents
Curriculum / Syllabus of such courses	<u>View File</u>
Minutes of the Boards of Studies/ Academic Council meetings with approval for these courses	<u>View File</u>
MoUs with relevant organizations for these courses, if any	<u>View File</u>
Any additional information	<u>View File</u>

#### 1.2 - Academic Flexibility

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#### 1.2.1 - Number of new courses introduced across all programmes offered during the year

#### 127

File Description	Documents
Minutes of relevant Academic Council/BoS meetings	<u>View File</u>
Any additional information	No File Uploaded
Institutional data in prescribed format (Data Template)	<u>View File</u>

### 1.2.2 - Number of Programmes offered through Choice Based Credit System (CBCS)/Elective Course System

12

File Description	Documents
Minutes of relevant Academic Council/BoS meetings	<u>View File</u>
Any additional information	No File Uploaded
List of Add on /Certificate programs (Data Template)	<u>View File</u>

#### 1.3 - Curriculum Enrichment

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

Human Values and Professional Ethics

We believe that after our students graduate and take up their profession; they have a responsibility to their Profession and Organization as we strongly feel that as a employer looks for a set of skills, knowledge, inputs and attitude in a person that they employ. In this regard, enough care is taken to infuse positive attitude in the Graduate by giving inputs which, of course, are not course related, but touch human life at large, which is ensured by incorporating the course titled "Human Values and Professional Ethics". This facilitates development of a Holistic perspective among students towards life, profession and happiness, based on the right understanding of the purpose of Human existence. Such a holistic perspective forms the basis of Value based living in a natural way.

Students are enlightened on Professional Ethics through various activities and case studies so that they:

- Discharge professional responsibilities with integrity, dignity, fairness and courtesy
- Give opinions in their professional capacity that are, to the best of their ability: objective, reliable and honest
- Avoid engaging themselves in activities which conflict with the interests of their organization.
- Not accept any financial or contractual obligation on behalf of his employer or client without their authority
- Treat colleagues and co-workers fairly and not misuse the advantage of position

#### Gender Sensitivity:

For students to demonstrate sensitivity with regard to gender issues, particularly on biological changes of both genders, showing empathy and appreciate healthy socialization among both the genders, a course on Gender Sensitization is introduced in the curriculum. Course is implemented through activity-based learning. With the help of Women Protection Cell (WPC) of the institute, various events are conducted promoting gender equality, wherein students realize the importance of sharing domestic work, economic and other contribution of women in the development of society. Some of the activities organized in the institution in promoting Gender Sensitization among the student community include, awareness programs on "Gender Equality - Its importance", 'Women in Nation Building, "Training on self-defense techniques", "health and hygiene", and "impact of gender violence on society".

#### Environment and Sustainability:

To create awareness about environmental impact on society due to urbanization and industrialization, a course on "Environmental Studies" was made part of the curriculum. This course facilitates students to understand the ecosystem and its functions, acquire knowledge about different types of natural resources, namely, land, water, minerals, non-renewable energy; their excessive usage leading to detrimental effects on environment, and understand different types of pollution, its control and impact on global environment. Various activities such as Dust Free

campaign, Environmental educational camps, Harithaharam (plantation of trees), active involvement in Swach Bharath, Village adoption etc. are conducted through Environmental club and NSS unit of the institute, with the voluntary participation of an appreciable number of students promoting ecological balance for sustainable development.

File Description	Documents
Upload the list and description of the courses which address issues related to Gender, Environment and Sustainability, Human Values and Professional Ethics in the curriculum	<u>View File</u>
Any additional information	No File Uploaded

### 1.3.2 - Number of value-added courses for imparting transferable and life skills offered during the year

22

File Description	Documents
List of value-added courses	<u>View File</u>
Brochure or any other document relating to value-added courses	<u>View File</u>
Any additional information	No File Uploaded

#### 1.3.3 - Number of students enrolled in the courses under 1.3.2 above

5693

File Description	Documents
List of students enrolled	<u>View File</u>
Any additional information	No File Uploaded

#### 1.3.4 - Number of students undertaking field work/projects/ internships / student projects

File Description	Documents
List of programmes and number of students undertaking field projects / internships / student projects	<u>View File</u>
Any additional information	No File Uploaded

#### 1.4 - Feedback System

# 1.4.1 - Structured feedback and review of the syllabus (semester-wise / year-wise) is obtained from 1) Students 2) Teachers 3) Employers and 4) Alumni

A. All 4 of the above

File Description	Documents
Provide the URL for stakeholders' feedback report	https://drive.google.com/file/d/15oT4gn5M6 CYPaJCzzAtnNWLtFZKKJhKc/view?usp=sharing
Upload the Action Taken Report of the feedback as recorded by the Governing Council / Syndicate / Board of Management	<u>View File</u>
Any additional information	<u>View File</u>

### 1.4.2 - The feedback system of the Institution comprises the following

A. Feedback collected, analysed and action taken made available on the website

File Description	Documents
Provide URL for stakeholders' feedback report	https://drive.google.com/file/d/1d-Piteq C leSE9RjpeteGj2049QvZaaB/view?usp=sharing
Any additional information	<u>View File</u>

#### TEACHING-LEARNING AND EVALUATION

#### 2.1 - Student Enrollment and Profile

#### 2.1.1 - Enrolment of Students

#### 2.1.1.1 - Number of students admitted (year-wise) during the year

File Description	Documents
Any additional information	<u>View File</u>
Institutional data in prescribed format	<u>View File</u>

### 2.1.2 - Number of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc.) as per the reservation policy during the year (exclusive of supernumerary seats)

364

File Description	Documents
Any additional information	No File Uploaded
Number of seats filled against seats reserved (Data Template)	<u>View File</u>

#### 2.2 - Catering to Student Diversity

2.2.1 - The institution assesses students' learning levels and organises special programmes for both slow and advanced learners.

The college understands that most obvious characteristic of a slow learner, which is a limited attention span compared to other learners. To keep these slow learners actively engaged in the learning process, requires more than the usual variation in presentation methods (direct, indirect), classroom climate (cooperative, competitive), and instructional materials (videos, workbooks, co-operative activities, simulations, etc). If this variation is not part of one's lesson, these learners may well create their own variety in ways that disrupt our teaching. Other immediately noticeable characteristics of slow learners are their deficiencies in basic skills (reading, writing, and mathematics), their difficulty in comprehending abstract ideas, and most disconcerting, their sometimes unsystematic and careless work habits.

Keeping these in view, our faculty monitor students' performance during regular class activities, lab work, tutorials, assignments, midterm examinations, mentoring and results of semester end examinations. In addition, of late, we have been administering psychometric tests. Using all the above, we segregate students into three categories, namely, slow, medium and advanced learners.

For slow learners, we provide remedial classes and also associate them with a peer who is a medium or quick learner as well as with a faculty mentor.

Our faculty provide Compensatory Teaching, which recognizes content, transmits through alternate modalities (pictures versus words), and supplements it with additional learning resources and activities (through laboratory exercises and simulations, group discussions and co-operative learning by forming a group of students in which one each of quick and medium learners are attached to the slow learner). This involves modifying an instructional technique by including a visual representation of content, by using more flexible instructional presentations (videos, pictures, illustrations).

Remedial Teaching: In addition to the regular classroom teaching, remedial teaching is conducted for slow learners through the use of activities, techniques and practices to eliminate weaknesses or deficiencies that the slow learner is known to have. For example, deficiencies in basic mathematical skills are reduced or eliminated by re-teaching the content that was not learned earlier. Sub-divide topics by reordering them so that students get multiple exposure of the topics facilitating better learning. Conventional instructional techniques such as drill and practice are employed.

Other Instructional Strategies for Slow Learners include, developing lessons incorporating students' interests, needs and experiences, and individualized learning materials through reinforcement of small segments of learning. Further, emphasizing on frequent diagnostic assessment of the student progress, paired with immediate corrective instruction, often is particularly effective.

Advanced learners are provided with more challenging tasks. They are given additional training on value added courses ranging from advanced to highly advanced programming skills, Business English Certificate, additional training to participate in Hackathons, project exhibitions, coding competitions, etc. facilitating them to build prototypes.

Medium learners are associated with slow learners and given training on "Logical Reasoning, improving Vocabulary, Verbal Reasoning, and Quantitative aptitude" to get through preliminary test conducted by various companies for placements. All categories of learners are given career guidance creating awareness on plethora of opportunities in terms of medium to highly paid jobs, pursue post-graduation etc.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	https://docs.google.com/document/d/1VF70tP 9wg81D0xybITOR0V9NisyM08jv/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true

#### 2.2.2 - Student - Teacher (full-time) ratio

Year	Number of Students	Number of Teachers
01/06/2021	3871	287

File Description	Documents
Upload any additional information	<u>View File</u>

#### 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:

Following are the student centric learning methods, which our faculty have been adopting to inculcate various skills in the students:

Collaborative Learning that facilitates students discuss ideas with classmates, in particular engage in subject specific discussions with peers and get feedback from classmates. They also learn to work cooperatively and collaboratively with classmates supporting each other by assimilating multiple views to deepen knowledge promoting critical thinking. This facilitates students to look for opportunities to work in groups wherein they teach and learn from one another thereby mitigating learner isolation. In addition, it has been encouraging interaction with classmates and instructor in and outside of class by obtaining feedback, promoting out-of-class learning. Further, they have been able to develop effective teamwork and communication (including interpersonal and cross cultural awareness) skills

which is fostering individual accountability and to the team, also resulting in development of independent learning strategies.

Group Learning towards development of Professional Competences:

In this pedagogical practice, Group Skills are developed, wherein student discusses ideas and develops ways to solve unstructured problems which have multiple solutions, resolve conflict and reach agreement in arriving at final solution. In doing so, student will be aware of feelings of members in the group by listening to ideas of others with open mind. Shall always look for opportunities to work on collaborative projects as a member of a team, working along with them both academically (e.g. knowledge of a topic) and socially (e.g. listening skills).

Learning through value added courses, wherein, student develops critical thinking on advanced/emerging topics as well as working on state of the art technologies gaining adequate exposure.

Experiential Learning facilitating development of Problem-Solving Skills:

This learning practice facilitates students with project based learning, developing various abilities, in particular, designing a system, object, product, etc. Further, it also facilitates students in solving an unstructured problem that requires identification of resources, interacting with peers, evaluation of possible solutions through discussions, and evidence of competing alternatives. Facilitates students to apply an abstract concept or idea to a real world problem, which is often solved by dividing the problem into manageable components and executing them individually, also working with a group and finally integrating into a workable solution, thereby, visualizing the product design and realizing the same. Subsequently, student develops technical report writing skills and presentation skills.

Facilitating interaction with various experts in the field through Guest Lectures, Industrial Visits, and Field trips thereby making them familiar with occupational awareness, wherein, student develops an ability to understand: What engineers do, the language and process of engineering design, and its economical aspects. They also understand the non-technical side of engineering such as its importance and impact on societal development, and environmental issues for sustainability.

File Description	Documents
Upload any additional information	<u>View File</u>
Link for additional Information	https://drive.google.com/file/d/1YNYZRKL1j EXBR5ljQy0kTjR6mtp-q9-b/view?usp=sharing

### 2.3.2 - Teachers use ICT-enabled tools including online resources for effective teaching and learning

The institute has been able to put to use ICT enabled tools in teaching with the following objectives:

- Developing an understanding and application of the concepts to real world problems
- Developing reasoning and thinking, improving comprehension, speed reading and vocabulary for student's career progression.

Through the use of ICT, we have been able to provide variety in the presentation of the content thereby helping learners in better understanding of concepts and long-term retention of information.

Google Meet, Gotomeeting, Microsoft Teams, Zoom and cisco webex platforms have been used for conducting online classes, Guest lectures, Remedial classes, value added courses, orientation program, and a couple of virtual industry visits.

WhatsApp groups/ Gmail groups have been employed to ensure collaborative work and exchange of content between teachers and students. Close monitoring of the students has been in place by the respective mentors through WhatsApp/Telegramgroups.

Learners are able to get an opportunity to work on any live project with learners and experts from other institutes. There has been a qualitative improvement of Teaching - Learning Process. Use of ICT has facilitated flexibility to learners to learn at their own pace which was denied by the traditional method.

WiFi network in the campus has been made available which students have been able to use for better understanding of different concepts, improving programming skills, aptitude skills and

vocabulary, developing Reasoning & Thinking, etc. so that they are better equipped towards campus placements, GRE, TOEFL, GATE etc.

Use of ICT in Remedial Teaching

Have been conducting Remedial Teaching using ICT. Instructional material developed is uploaded on the institute's website, wherein students use and learn as per their convenience and take the help of the teacher as and when required.

Use of ICT in Evaluation

Digital evaluation has been facilitating students to get feedback within a few days of administering the tests, through which students have been able to improve their learning.

Use of ICT in Developing Virtual Laboratory

Some tools were procured which facilitate students and faculty to conduct certain experiments wherein one can manipulate any attribute or variable related to an experiment and can see how it affects the outcome. Virtual Laboratories can be developed using ICT although the institute is still in its infancy in doing so. It may be made available at the door step of each and every student by uploading it on the institute's website. Such a website will not only help our students but also goes a long way in helping students of other institutes.

Use of ICT in developing Thinking and Reasoning, improving comprehension, speed reading and vocabulary for student's career progression.

We have been using several video lectures, remote live sessions to impart programming skills, value added courses, aptitude skills (Quantitative, logical, reading comprehension, vocabulary, situational writing and soft skills). Use of ICT in developing these skills in students has been resulting in their improved employability over the years.

File Description	Documents
Provide link for webpage describing ICT enabled tools including online resources for effective teaching and learning process	https://docs.google.com/document/d/11j3RCq WWgoQpYr14bWs4GuZ2Sjrp70-h/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true
Upload any additional information	<u>View File</u>

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

#### 2.3.3.1 - Number of mentors

201

File Description	Documents
Upload year-wise number of students enrolled and full-time teachers on roll	<u>View File</u>
Circulars with regard to assigning mentors to mentees	<u>View File</u>

#### 2.3.4 - Preparation and adherence to Academic Calendar and Teaching Plans by the institution

The institution plans and executes all academic, co-curricular and extra-curricular activities through a well-conceived academic calendar.

The Academic calendar for each program is prepared by Dean, Academics in consultation with HoDs and other in-charges enumerating all the above mentioned activities in each semester/year. Subsequently, each department specifies a time line of activities of its own including co-curricular and extracurricular activities and incorporates the same in the academic calendar. The prepared academic calendar is reviewed by the College Academic Committee. It is subsequently presented to the Academic Council, which approves with or without modifications.

Six to Eight weeks prior to the commencement of each semester, Heads of the departments elicit course options from the faculty members which they would like to teach in the ensuing semester. The course options are taken in such a way that the faculty members shall include at least one course that has an associated laboratory component. Courses are allocated to the faculty based

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on their expertise. When the number of sections is more, the senior most among the faculty members teaching the particular course is designated as course coordinator, who in association with other faculty teaching the same course prepares the lesson plans for the course, for the duration of the semester. They also prepare a course fileby clarifying the purpose of the coursealong with expected learning outcomes (LOs) and methods for assessing the course outcomes.

The course purpose involves: the role the course plays within the Program, the uniqueness of the course within the Program and its relationship with other courses, essential knowledge or skills gained from this experience, prerequisite(s) for this course and outcomes of the course.

Laboratory instruction is planned such that students acquire an understanding of scientific methods/inquiry through problem solving which include recognizing and defining a problem, formulation of hypotheses, designing of experiments, collecting data through observation and experimentation, interpreting data and drawing conclusions. Subsequently, they prepare a report on the outcomes and their implications.

Tutorial sessions are conducted with two teachers handling the same course, so that, most of the students get involved in discussions and interactions with teachers while solving problems.

Teachers maintain a teaching diary that contains the topics discussed during a session, along with the record of students attended.

Departments maintain a weekly report for each section which keeps track of the number of sessions engaged for each course along with the topics discussed which is monitored by the Head of the department and Dean, Academics.

Course coordinator monitors the progress of the course during the semester and communicates the same to the programme coordinator.

Programme Assessment Committee (PAC) reviews the progress of various courses from time to time and suggests appropriate measures.

Various committees (both statutory and non statutory) are constituted for periodical reviews regarding the progress of

curricular, co-curricular and extra-curricular activities.

Academic committee, Academic council and governing body meet at stipulated intervals and review activities at institutional level.

File Description	Documents
Upload the Academic Calendar and Teaching Plans during the year	<u>View File</u>

#### 2.4 - Teacher Profile and Quality

#### 2.4.1 - Number of full-time teachers against sanctioned posts during the year

287

File Description	Documents
Year-wise full-time teachers and sanctioned posts for the year	<u>View File</u>
List of the faculty members authenticated by the Head of HEI	<u>View File</u>
Any additional information	No File Uploaded

### 2.4.2 - Number of full-time teachers with PhD/ D.M. / M.Ch. / D.N.B Super-Specialty / DSc / DLitt during the year

68

File Description	Documents
List of number of full-time teachers with PhD./ D.M. / M.Ch. / D.N.B Super-Specialty / D.Sc. / D.Litt. and number of full-time teachers for 5 years	<u>View File</u>
Any additional information	No File Uploaded

### 2.4.3 - Total teaching experience of full-time teachers in the same institution: (Full-time teachers' total teaching experience in the current institution)

File Description	Documents
List of teachers including their PAN, designation, Department and details of their experience	<u>View File</u>
Any additional information	No File Uploaded

#### 2.5 - Evaluation Process and Reforms

### 2.5.1 - Number of days from the date of last semester-end/ year- end examination till the declaration of results during the year

File Description	Documents
List of Programmes and the date of last semester-end / year- end examinations and the date of declaration of result	<u>View File</u>
Any additional information	No File Uploaded

### 2.5.2 - Number of students' complaints/grievances against evaluation against the total number who appeared in the examinations during the year

437

File Description	Documents
Upload the number of complaints and total number of students who appeared for exams during the year	<u>View File</u>
Upload any additional information	No File Uploaded

## 2.5.3 - IT integration and reforms in the examination procedures and processes including Continuous Internal Assessment (CIA) have brought in considerable improvement in the Examination Management System (EMS) of the Institution

#### **Examination Reforms**

- 1. In the autonomous system is one of the most important components is the examination process. The following are the examinations conducted right through the semester.
  - 1. Two Mid-term examinations and for theory and lab courses
  - 2. Compensatory mid examination for theory and lab for both absentees and for improvement

- 3. Semester End Examinations for theory and lab courses
- 4. Supplementary examinations for theory and lab courses
- 2. At Geethanjali College of Engineering and Technology, we have devised a comprehensive examination system, backed by state-of-the-art hardware and software systems, to administer the process smoothly.
- 3. The marks to be awarded to each credit carrying course shall be 100, out of which, 30 marks are allocated for Continuous Internal Evaluation (CIE) and 70 marks for Semester End Examination (SEE).
- 4. Mid-semester Examination: Question papers shall be evaluated by a departmental committee comprising senior faculty members and a member from other department for correctness of the questions, a balanced question paper, with uniform weightage for the prescribed syllabus adhering to various levels of Bloom's taxonomy, with more questions pertaining to higher levels for third and final year courses. For second and third year students, relatively lesser number of questions are given at higher levels of Bloom's taxonomy.
- 5. Semester End Examination: Panel of examiners for preparation of question papers and evaluation of the answer scripts are chosen from various autonomous colleges and universities of repute, duly approved by the Board of studies of the concerned department. Guidelines are given to the examiners with regard to the levels of Bloom's taxonomy that shall be used in the preparation of question papers. Examiners are also provided the syllabus copy along with the structure of the question paper. Multiple question papers are elicited and the best question paper in terms of adherence to quality, higher order thinking levels and highly balanced one is selected for the examination purpose through scrutiny of the Question paper which shall be carried out by the Chairperson of Board of Studies, along with a senior faculty member (subject expert/course coordinator).
- 1. Evaluation: For the purpose of evaluation of semester end examination answer books, evaluators who have taught the course for a minimum of 5 times are invited. The chief examiner (subject expert/course coordinator) conducts a meeting with all the evaluators and explains the scheme of evaluation. The chief examiner randomly verifies at least

- ten percent of the evaluated answer books for consistency and correctness of evaluation, choosing a third each from the ten percent of the highest, moderately and least scored respectively.
- 2. Digital valuation system, for CIE and SEE, is employed ensuring storage for longer duration as well as ease of evaluation through remote login which has also come in handy during the pandemic.
- 3. Computerization of the complete examination results processing system is adopted through state-of-the-art software and hardware components.
- 4. The examination results committee comprising Principal, Controller of Examinations, Heads of the departments and a nominee appointed by the affiliating university.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional Information	https://docs.google.com/document/d/10b30dw PfPSUFIubrOnJSqlEz0AiJ26fj/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true

#### 2.6 - Student Performance and Learning Outcomes

2.6.1 - Programme Outcomes and Course Outcomes for all Programmes offered by the institution are stated and displayed on the website and communicated to teachers and students

Course outcomes of each course are given in the book that contains "Academic Regulations, Program Structure and Detailed Syllabus" which is given to all faculty and students. The same is uploaded on the college website department-wise. Course outcomes of each course are also available in the course file maintained by the teachers also made available on the website. Course outcomes of each lab course are also given in the lab manual/student workbook, in addition to displaying in the corresponding lab. Course outcomes of one course of each department are given below:

B.Tech Civil Engineering and B.Tech Mechanical Engineering

Course: Engineering Mechanics-I

1. Describe position, forces, and moments in terms of vector notation in two and three dimensions.

- 2. Draw free body diagrams accurately and write appropriate equilibrium equations from the free body diagram, including support reactions.
- 3. Apply concepts of equilibrium to analyse systems that include frictional forces.
- 4. Calculate centroids and centres of mass for discrete particles.
- 5. Calculate moments of Inertia for standard sections and composite sections.

B.Tech Electrical and Electronics Engineering and B.Tech Electronics and Communication Engineering

Course: Digital Design

At the end of the course, student would be able to

- CO1. Perform conversions from one number system to another.
- CO2. Simplify switching functions using Boolean minimization theorems, map method and tabulation method.
- CO3. Analyze and design combinational logic circuits and the effect of Static Hazards on these circuits.
- CO4. Synthesize symmetric functions using relay contact networks.
- CO5. Design switching circuits using threshold elements.
- CO6. Analyze and Design Sequential logic Circuits
- B.Tech Computer Science and Engineering, B.Tech Computer Science and Engineering (Emerging Areas of Specializations) and B. Tech Information Technology

Course: Data Structures

- CO1. Explain the basic concepts of Abstract Data Types, Linear and Non-Linear Data structures.
- CO2. Calculate the performance of the different algorithms in terms of time and space.
- CO3. Write programs in C for different data structures like stacks, queues, linked lists (singly and doubly).

CO4. Select appropriate data structure for a given problem.

CO5. Write C programs for various searching algorithms, sorting algorithms and nonlinear data structures such as trees and graphs.

M. Tech Computer Science and Engineering

Course: Machine Learning

CO1: Understand the concepts of computational intelligence like machine learning

CO2: Ability to get the skill to apply machine learning techniques to address the real time problems in different areas

CO3: Understand the Neural Networks and its usage in machine learning application.

CO4: Student should be able to understand the basic concepts such decision tree and neural networks.

CO5: Ability to formulate machine learning techniques to respective problems.

#### **MBA**

Course: Marketing Management

CO1: Understanding the concepts of Marketing Management.

CO2: Analyze markets.

CO3: Design customer driven strategies.

CO4: Communicate the decisions towards business development with superior customer value.

CO5: Know the concepts of pricing decisions and concepts of personal communication.

File Description	Documents
Upload COs for all courses (exemplars from the Glossary)	<u>View File</u>
Upload any additional information	No File Uploaded
Link for additional Information	https://docs.google.com/document/d/1XOdKJO kkbtdNa8-ro 2rTLYNvYWjHqC1/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true

#### 2.6.2 - Attainment of Programme Outcomes and Course Outcomes as evaluated by the institution

#### PROCEDURE FOR MEASURING THE COS ATTAINMENT

- 1. CO attainments are calculated by considering marks obtained in each question of all students who attend Mid-term(CIE) and semester end examinations(SEE).
- 2. For Objective Paper of mid-term examinations, Assignments and Tutorials, overall CO attainment is calculated, made applicable to all COs, presuming all COs have same attainment.
- 3. For measuring the attainments of COs of a theory course, the targets are fixed as given below:
- Mid-Term Subjective: 60% of maximum marks related to each
- Assignments and Tutorials (if any): 60% of maximum marks (3 marks out of 5)
- Mid-Term Objective: 60% of maximum marks (6 marks out of 10)
- Semester End Examination: 60% of maximum marks related to each CO
- 1. Thus, the attainment levels are fixed as follows:

#### Semester End Exam

Level indicator for CO attainment against % of students attaining target marks

#### Level1

```
? 40 and <50
Level2
?50 and <60
Level3
?60
Mid-term Exams - Subjective, Objective, Assignments and Tutorials
Level indicator for CO attainment against % of students attaining
target marks
Level1
? 60 and <70
Level2
?70 to <80
Level3
?80
Indirect attainment - Course End Survey, CRC and TLP feedback
Level indicator for CO attainment against feedback score
Level1
? 60% and <70%
Level2
? 70% and <80%
Level3
?80%
```

- 1. In the case of "Either-or" for a question, maximum marks scored by student is considered for CO attainment.
- 2. If no attempt is made to answer a question, zero marks are awarded and attainment calculated
- 3. Weightage for direct and indirect measurements for CO attainment: 75% (CIE and SEE), and 25% students' feedback on TLP (10%), CRC (10%) and Course End Survey (5%).
  - 1. Weightage for Direct measurement: 60% for SEE , 40% for CIE
  - 2. Direct Attainment of CO = 0.2\* Mid-term Subjective +
     0.1\* Mid-term Objective + 0.05\* Assignment + 0.05\*
     Tutorial + 0.6\* SEE.
  - 3. Indirect Attainment of COs through feedback = 0.4\* TLP+ 0.4\* CRC + 0.2\* CES
- 4. For practical examinations (CIE and SEE), 60% of maximum marks kept as target for attainment. Distribution of marks as follows: SEE-70, CIE-30(Mid-Term-15, Day to day-15)
  - 1. CO attainment levels: greater than or equal to 80% for Level3, greater than or equal to 70% for Level2 andgreater than or equal to 60% for Level1
- 5. Similar procedure has to be adopted for Projects, Seminars, Mini Projects, Internships and other such similar courses.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional Information	https://docs.google.com/document/d/ldq8tUi UyAVOEMSYrCPXioZNlmAqx0Cx1/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true

#### 2.6.3 - Pass Percentage of students

### 2.6.3.1 - Total number of final year students who passed in the examinations conducted by Institution

File Description	Documents
Upload list of Programmes and number of students appear for and passed in the final year examinations	<u>View File</u>
Upload any additional information	No File Uploaded
Paste link for the annual report	http://www.geethanjaliinstitutions.com/eng ineering/announcements.html

#### 2.7 - Student Satisfaction Survey

### 2.7.1 - Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design its own questionnaire). Results and details need to be provided as a weblink

https://drive.google.com/file/d/1Guo7PkeDh DpySjFBamJpuaC26iadyDv
/view

#### RESEARCH, INNOVATIONS AND EXTENSION

#### 3.1 - Promotion of Research and Facilities

3.1.1 - The institution's research facilities are frequently updated and there is a well-defined policy for promotion of research which is uploaded on the institutional website and implemented

College strongly believes that research is an integral part of any scholarly activity, which facilitates/develops creativity, innovation, analytical thinking and problem solving capabilities among students and faculty. Towards this end, College has applied for recognition as Scientific and Industrial Research Organization (SIRO), Directorate of Scientific and Industrial Research (DSIR) in 2011 and has been recognized as SIRO since March 2011.

The goal, policy and implementation of research are given hereunder.

Goal: To foster an environment of open inquiry and academic freedom in which individuals pursue scholarly activities.

Accordingly, the policy adopted, its implementation and the vision are as follows:

Policy and implementation: Devised an organizational structure at departments which proactively promotes and encourages research facilitating younger faculty and students to associate themselves with senior faculty in pursuing research. Towards this, each department is divided into groups/divisions as per areas of specializations and faculty are grouped accordingly. A senior Professor heads each division, a few other senior faculty of that division act as Lead Faculty and act as mentors to other faculty of that division and guide them in their academic and research pursuits.

- a) Undergraduate and Postgraduate students are encouraged to take up research oriented projects for dissertation. Students and faculty are financially supported to attend/participate in conferences; financial incentives are given for publishing/presenting their research work and costs involved for patenting, if any. About 40 research papers from Undergraduate theses work have been published in the year 2020-2021.
- b) Faculty are encouraged to register for Ph.D. Study leave is provided to faculty pursuing full time Ph.D. Faculty who have put in a service of Three/Five years in the college and pursuing Ph.D are given a day off in a week to expedite their research work.
- c)Whenever research proposals have been called for either through internal and external funding, faculty with research potential and capabilities of various departments are identified and advised to identify research problems preferably involving interdisciplinary areas and encouraged to submit the same to the research committee of the college, which discusses and further identifies resource persons in other departments/organizations for collaboration, if any, so that an interdisciplinary research proposals evolve which are finally submitted for funding purposes. Based on its utility to society, college provides seed money as internal funding to initiate the research project. A couple of interdisciplinary research projects have evolved with internal as well as external funding. Industrial linkage is encouraged so that the outcome of the research work being carried out would be utilised by the industry/society.
- d) College has entered into a few MoUs with various organizations to strengthen research and development activity. Experts from industry and R&D organizations have been invited as members into Governing body, Academic council of the college and Board of studies of various departments. Faculty Development Programmes,

Guest Lectures and Student development programmes are conducted inviting experts from industry and R&D establishments, who have been facilitating students through internships, some of which resulting in jobs for students.

File Description	Documents
Upload the Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	<u>View File</u>
Provide URL of policy document on promotion of research uploaded on the website	https://www.geethanjaliinstitutions.com/engineering/img/downloads/ResearchPolicy_GCE_T.pdf
Any additional information	No File Uploaded

#### 3.1.2 - The institution provides seed money to its teachers for research

### 3.1.2.1 - Seed money provided by the institution to its teachers for research during the year (INR in lakhs)

NIL

File Description	Documents
Minutes of the relevant bodies of the institution regarding seed money	No File Uploaded
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	<u>View File</u>
List of teachers receiving grant and details of grant received	No File Uploaded
Any additional information	No File Uploaded

### 3.1.3 - Number of teachers who were awarded national / international fellowship(s) for advanced studies/research during the year

File Description	Documents
e-copies of the award letters of the teachers	No File Uploaded
List of teachers and details of their international fellowship(s)	No File Uploaded
Any additional information	No File Uploaded

#### 3.2 - Resource Mobilization for Research

### 3.2.1 - Grants received from Government and Non-Governmental agencies for research projects, endowments, Chairs during the year (INR in Lakhs)

58.95

File Description	Documents
e-copies of the grant award letters for research projects sponsored by non-governmental agencies/organizations	<u>View File</u>
List of projects and grant details	No File Uploaded
Any additional information	<u>View File</u>

#### 3.2.2 - Number of teachers having research projects during the year

08

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional Information	http://www.geethanjaliinstitutions.com/eng ineering/research-project.html
List of research projects during the year	<u>View File</u>

#### 3.2.3 - Number of teachers recognised as research guides

File Description	Documents
Upload copies of the letter of the university recognizing teachers as research guides	<u>View File</u>
Institutional data in Prescribed format	<u>View File</u>

### 3.2.4 - Number of departments having research projects funded by Government and Non-Government agencies during the year

04

File Description	Documents
Supporting document from Funding Agencies	<u>View File</u>
Paste link to funding agencies' website	http://www.geethanjaliinstitutions.com/eng ineering/research-project.html
Any additional information	No File Uploaded

#### 3.3 - Innovation Ecosystem

3.3.1 - Institution has created an ecosystem for innovations and creation and transfer of knowledge supported by dedicated centres for research, entrepreneurship, community orientation, incubation, etc.

We at GCET fervently believe that educational institutions are a mirror of future society. The foremost goal of education is to create men and women who are capable of doing new things, be creative in their thinking and add value in providing solutions to societal problems.

Towards this motive, we have established an incubation center which has been facilitating creativity and innovation among students and faculty. Its very purpose is to provide interactive and free-thinking environment, wherein students, faculty and others exchange ideas on problems facing society and providing environmental friendly sustainable solutions to societal problems through innovative research projects working collaboratively and cooperatively with all concerned.

The philosophy of our incubation center is to provide resources to students and faculty so that their ideas can be transformed to reality thereby generating an entrepreneurial culture among students and faculty. Ecosystem for innovation, creation and transfer of knowledge is largely constituted by the incubation center which works in tandem with the R&D cell and entrepreneurship development cell of the college. Our Incubation centre has been working under the guidelines of Institute's Innovation Council (IIC) of Ministry of Education. We also have been in collaboration with J-HUB, a state government funded under section '8' incubation center called, J-LABs at Jawaharlal Nehru Technological University Hyderabad (JNTUH), Kukatpally Hyderabad.

Design thinking and Entrepreneurship courses have been administered for students through faculty and also through industry experts, entrepreneurs, and community.

GCET has adopted the National innovation and Startup policy (NISP) for encouraging and nourishing the innovation quotient and entrepreneurial abilities of the students, coming with innovative ideas and also has been improving the employability skills of students. The Centre invites ideas not only from students, faculty but also from others through its dedicated webpage.

Ideas are reviewed by a committee comprising of senior professors and accordingly seed money is made available to undertake Innovative projects and resulting IPRs are protected through patenting with financial support.

24-36Hr Hackathons, ideathons are conducted periodically to identify potential ideas. An expert committee to guide the incubatees is constituted with a mix of eminent personalities coming from different backgrounds viz., serial entrepreneurs, venture capitalists, industrialists, alumni working in senior positions and enthusiastic faculty. We have currently three startups registered and incorporated with Ministry of Corporate Affairs, Government of India, receiving incubation support from the GCET's incubation center. College also has registered with MSME, Government of India.

MoUs with various organizations were signed to strengthen the innovation activities to provide the information on entrepreneurship to the student and faculty. Our Center is motivating students to involve in the activities of the centre to come up with innovative ideas which are implemented practically

for which necessary financial support and infrastructural facilities are provided.

Our eco-system is manifested by providing opportunities to students and faculty to showcase their products developed for technology transfer by forging and reinforcing connection between academic, research organizations, industry, businesses, and government.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://docs.google.com/document/d/1PSNm meVzIl9dLp3Jwfiy2Cq7DRTUd/edit?usp=sharing&ouid=105062712823366765579&rtpof=true&sd=true

### 3.3.2 - Number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR), Entrepreneurship and Skill Development during the year

File Description	Documents
Report of the events	<u>View File</u>
List of workshops/seminars conducted during the year	<u>View File</u>
Any additional information	No File Uploaded

#### 3.4 - Research Publications and Awards

3.4.1 - The Institution ensures	A. All of the above
implementation of its Code of Ethics for	
Research uploaded in the website through	
the following: Research Advisory Committee	
<b>Ethics Committee Inclusion of Research</b>	
Ethics in the research methodology course	
work Plagiarism check through	
authenticated software	

File Description	Documents
Code of Ethics for Research, Research Advisory Committee and Ethics Committee constitution and list of members of these committees, software used for plagiarism check	View File
Any additional information	No File Uploaded

### 3.4.2 - Number of PhD candidates registered per teacher (as per the data given with regard to recognized PhD guides/ supervisors provided in Metric No. 3.2.3) during the year

#### 3.4.2.1 - Number of PhD students registered during the year

0

File Description	Documents
URL to the research page on HEI website	https://docs.google.com/spreadsheets/d/1mV dNLbQPnA ABQqgwBw53SxH7Lg8r4XH/edit?usp=sh aring&ouid=105062712823366765579&rtpof=tru e&sd=true
List of PhD scholars and details like name of the guide, title of thesis, and year of registration	<u>View File</u>
Any additional information	<u>View File</u>

### 3.4.3 - Number of research papers per teacher in CARE Journals notified on UGC website during the year

#### 128

File Description	Documents
List of research papers by title, author, department, and year of publication	<u>View File</u>
Any additional information	No File Uploaded

### 3.4.4 - Number of books and chapters in edited volumes / books published per teacher during the year

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	https://docs.google.com/spreadsheets/d/1FQ 70JZdyQtWjcDYrEErfgJPArJHNrW/edit?usp=sh aring&ouid=105062712823366765579&rtpof=tru e&sd=true

### 3.4.5 - Bibliometrics of the publications during the year based on average Citation Index in Scopus/ Web of Science/PubMed

#### 3.4.5.1 - Total number of Citations in Scopus during the year

35

File Description	Documents
Any additional information	No File Uploaded
Bibliometrics of the publications during the year	<u>View File</u>

### 3.4.6 - Bibliometrics of the publications during the year based on Scopus/ Web of Science – h-Index of the University

#### 3.4.6.1 - h-index of Scopus during the year

13

File Description	Documents
Bibiliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	<u>View File</u>
Any additional information	No File Uploaded

#### 3.5 - Consultancy

### 3.5.1 - Revenue generated from consultancy and corporate training during the year (INR in lakhs)

File Description	Documents
Audited statements of accounts indicating the revenue generated through consultancy and corporate training	<u>View File</u>
List of consultants and revenue generated by them	<u>View File</u>
Any additional information	<u>View File</u>

### 3.5.2 - Total amount spent on developing facilities, training teachers and clerical/project staff for undertaking consultancy during the year

0

File Description	Documents
Audited statements of accounts indicating the expenditure incurred on developing facilities and training teachers and staff for undertaking consultancy	<u>View File</u>
List of training programmes, teachers and staff trained for undertaking consultancy	<u>View File</u>
List of facilities and staff available for undertaking consultancy	No File Uploaded
Any additional information	<u>View File</u>

#### 3.6 - Extension Activities

3.6.1 - Extension activities carried out in the neighbourhood sensitising students to social issues for their holistic development, and the impact thereof during the year

The college promotes regular engagement of faculty, students and staff with neighbourhood community for their holistic development and sustained community development through various activities. Every Year, programs are organized under which students, faculty and staff participate voluntarily in community-based activities with neighbourhood.

Various awareness programs, workshops, rallies and road shows with themes like cleanliness, green environment and tree plantation, gender sensitization, traffic rule awareness, and empowerment of girls and women are organized.

Continuous voluntary activities by students to maintain cleanliness in and around the Campus, creating awareness about the role of clean environment for human health and contributed to the National Swachh Bharat Abhiyan

Blood Donation and Oral Health (Aim to Terminate Tobacco and Cancer) camps, and Training of Rural Women have been organized.

Impact and Sensitization:

Exposure to extension and outreach activities sensitized students towards social issues and also to legal and social remedies for matters like domestic violence, dowry, child abuse, female child, victims of violence, old and infirm, refugees and displaced persons etc.

The activities conducted lead imbibing the values of social responsibility such as:

To help people in need and distress

To understand and share the need of under privileged children

To promote cleanliness in all span of life and common places.

To acquire social values and a deep interest in environmental related issues.

Learning outcomes of the activities:

Enlargement of knowledge on societal issues and problems and to search solution by getting involved with their lives.

Develop skill and an aptitude for problem solving.

The skills developed include social skills communication skills, management skills, leadership skills, analytical skills, perceptual skills etc.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	https://docs.google.com/document/d/18CdPS1 qZ4rc8qgi8KUFOgp5nbqtntJ0r/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true

## 3.6.2 - Number of awards and recognition received by the Institution, its teachers and students for extension activities from Government / Government-recognised bodies during the year

0

File Description	Documents
Number of awards for extension activities in during the year	<u>View File</u>
e-copy of the award letters	No File Uploaded
Any additional information	No File Uploaded

3.6.3 - Number of extension and outreach programmes conducted by the institution through NSS/NCC/Red Cross/YRC, etc. during the year (including Government-initiated programmes such as Swachh Bharat, AIDS Awareness, and Gender Sensitization and those organised in collaboration with industry, community and NGOs)

02

File Description	Documents
Reports of the events organized	<u>View File</u>
Any additional information	<u>View File</u>

#### 3.6.4 - Number of students participating in extension activities listed in 3.6.3 during the year

185

File Description	Documents
Reports of the events	<u>View File</u>
Any additional information	No File Uploaded

#### 3.7 - Collaboration

### 3.7.1 - Number of collaborative activities during the year for research/ faculty exchange/ student exchange/ internship/ on-the-job training/ project work

600

File Description	Documents
Copies of documents highlighting collaboration	<u>View File</u>
Any additional information	No File Uploaded

## 3.7.2 - Number of functional MoUs with institutions of national and/or international importance, other universities, industries, corporate houses, etc. during the year (only functional MoUs with ongoing activities to be considered)

17

File Description	Documents
e-copies of the MoUs with institution/ industry/ corporate house	<u>View File</u>
Details of functional MoUs with institutions of national, international importance, other institutions etc. during the year	<u>View File</u>
Any additional information	No File Uploaded

#### INFRASTRUCTURE AND LEARNING RESOURCES

#### 4.1 - Physical Facilities

4.1.1 - The Institution has adequate infrastructure and physical facilities for teaching-learning, viz., classrooms, laboratories, computing equipments, etc.

Geethanjali College of Engineering and Technology is located in a lush green campus of 10 acres, with aesthetically pleasing buildings, provides good academic ambience, conducive for Learning.

The college has 53 well-furnished and spacious classrooms, 14 tutorial rooms and 5 air-conditioned seminar halls with good acoustics. Some class rooms and seminar halls have LCD Projector, Wi-Fi connectivity and public address system. The institution has 79 fully equipped and well-maintained laboratories to cater to the needs of the curriculum. Research laboratories with industrial collaboration and Centres of Excellence in specific

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areas are established to provide domain specific training for students.

Apart from the required computer laboratories for each department, two additional computer centres are established. We have 2146 Computers in the institute which are provided with 210 Mbps internet connectivity, there by address over and above the needs of the curriculum.

In addition to the central Library of the institute, each department has a separate library with good collection of textbooks. E-learning facility is provided in a few class rooms. Digital Library is accessible on LAN (Intranet) to all students and faculty. Library server has a large collection of learning material.

College provides special facilities for differently abled persons, namely, Lifts, Ramp/ Rails, Wheel chairs. First aid boxes are available in the departments, laboratories and workshops. Institution has a linkage with Vijaya Hospital for any emergency medical assistance. The college has an Ambulance with Oxygen cylinder and stretcher, an in-house Medical Centre/ Dispensary with a fulltime nurse.

College has adequate power backup and UPS facilities. Entire electrical load of the college can be run ontwo Kirloskar diesel generators of 200 KVA and 125 KVA. All thelaboratories are using 25 different sizes of UPS with a total capacity of 190 KVA.

Cabins for Deans, HoDs, Professors and Associate Professors with computer and printer facilities are available. Discussion rooms, Meeting rooms are available. Fire extinguishers are placed in each floor of each building.

Potable drinking water is made available in the entire campus through an RO plant. College has a fleet of 40 busses plying from all prominent places of the city. Special buses are arranged for students and staff staying beyond working hours. College has a good hygienic canteen.

Infrastructural Facilities

Room Type

Required Number
Available Number
Required Area in sqm.
Available Area in sqm.
Class Rooms
53
53
3498
3869
Tutorial Rooms
14
14
462
893
Laboratories
79
79
5214
6277
Workshops
02
02
469

Additional Workshops
04
851
Computer Centres
02
02
305
Drawing Hall
02
02
336
Seminar Rooms
03
03
751
Library
01
01
996
Language Laboratories

02
02
106
186
Research Laboratories
136
Computing Facilities
Description
Available Number
Desktop Computers
2146
Servers
DEL VELS
04
Laptops
14
Printers
84
LCD Projectors
20
Scanners
30
CCTV Cameras

40

Internet

210 Mbps

WiFi

Reliance Jio and Stand-alone

Firewall

02

Router

90

Writing Pads for Online classes

30

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://docs.google.com/document/d/1g0fUkz zXeWe83qfkRsQaSLRXT0RBsaSC/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true

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

We strongly believe that the college years are crucial in students' cognitive, emotional, moral, and social development. Their interaction with peers through various co-curricular and extra-curricular activities that include sports and cultural activities influences development of their cognitive skills, identity, self-concept, and self-esteem, and values and attitudes, behavior patterns, and personality. They come across people who see the world differently than themselves and hear a lot of ideas/perceptions, contrary to their own, which they may

not agree with. This experience enables them to keep an open mind, respect others' views and try to understand, even if one does not agree with them.

The college with its sprawling, lush green open-air Auditorium having 3000 seating capacity provides a breathtaking view and abundant space facilitates a number of functions. Notable among them are: Graduation Day, Traditional Day, Orientation Day for First Year students, Bathukamma, a flower festival, Earth Day, College Day celebrations, Music, Singing, Dance Rangoli, Skits, and Photo Exhibitions. Active participation of students in various events, facilitate development of Creativity, Innovative thinking, Leadership, and Emotional Quotient in them.

The college has six academic blocks for carrying out instruction and other associated co-curricular, extra-curricular and cultural activities.

Block-I has a 250-seater, Air-conditioned Seminar Hall and two smaller seminar halls where a good number of literary activities, namely, group discussion, JAM sessions, Bull's eye, what's the good word, etc. are conducted so that students develop articulation, critical thinking and interpersonal skills.

The portico of Block II, overlooking an aesthetically laid our garden is the stage for smaller events, namely, Fashion Shows, Dance Competitions, Painting Exhibitions etc. Table-tennis, carroms and chess games are held in the games room of Block-II.

In Block III, the 100-seat Seminar Hall facilitates conduct of mini conferences, departmental events, etc. The grounds in front of Block-III facilitate conduct of sports, which require lesser space. In addition, they also house the Basketball Court, and net practice sessions for cricket players.

Block-IV is furnished with a 400-seat Air-conditioned Seminar Hall, used for performing dance and musical programs, in addition to some co-curricular activities.

Yoga sessions are conducted on the lawns of the Open Auditorium and Seminar Halls.

The college allocates one/two-hour time slots in Timetable encouraging students participation in sports thereby inculcating

sporting spirit in them and they understand winning losing are part of life. Transportation is arranged for students participating in sports and games beyond college working hours to reach their homes. It's the college's conviction that holistic development of a student is only possible, when students participate in several cultural, literary and sports activities over and above their academics. Geethanjalites won several laurels in State Under-19 competitions in many sports events in the past few years.

File Description	Documents
Geotagged pictures	<u>View File</u>
Upload any additional information	No File Uploaded
Paste link for additional information	https://docs.google.com/document/d/1TuFoFk nZ4Hj0E0VAW241Xhp5q2Ls47/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true

#### 4.1.3 - Number of classrooms and seminar halls with ICT-enabled facilities

10

File Description	Documents
Upload any additional information	<u>View File</u>
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	<u>View File</u>

### 4.1.4 - Expenditure for infrastructure augmentation, excluding salary, during the year (INR in Lakhs)

	4	^			2
O	т.	U	•	2	3

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File Description	Documents
Upload audited utilization statements	<u>View File</u>
Details of Expenditure, excluding salary, during the years	<u>View File</u>
Any additional information	No File Uploaded

#### 4.2 - Library as a Learning Resource

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

Data Requirement: Provide a description of the library with

- Name of the ILMS software: Ez Library Software and Winnou Application Software
- Nature of automation (full or partial) : Fully Automated
- Version: EzLibrary 10.0.9.22 and Winnou Application 2.0
- Year of automation :2009

Present a write-up within a maximum of 200 words.

The institute has a spacious central library in an independent building with an area of 1110 Sqm. spread over two floors. First Floor is accommodating OPAC, periodicals, News Papers, digital library, thesis, reprography and special reference. Second floor is accommodating circulation, references, periodical back volumes, computer centre etc. It is having a modern infrastructure with a seating capacity of 250 students.

Digital library with 100 systems to access E-journals, E-books, E-learning, Multimedia Centre and photocopying are made available for the convenience of the users and facility to access NPTEL video lectures.

Central Library is fully automated with Integrated Library Management Software, Ez-Library version 10.0.9.22 and Winnou version (2.0) used for circulation, procurement, Online Public Access Catalogue (OPAC). All library documents are bar-coded and books issued to users by scanning the barcode of the document.

It has the collection of 6627 Titles and 38338 volumes of books and subscribed more than 6422 online journals of IEEE,K-

HUB, DELNET, NATIONAL DIGITAL LIBRARY, and subscribed 170 Journals in print.

Library & Information Centre provides uncompromising information and intellectual requirements to its students and faculty with user-friendly approach. It offers a fully integrated and dynamic environment for conducting academic study. Library is fully computerized with bar-coding system

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	https://docs.google.com/document/d/1b4B80E gb4bP3azeP-td0JbQqzjjVfRwLwCJm7pCXZC0/edit

#### 4.2.2 - Institution has access to the following: e-journals e-ShodhSindhu Shodhganga Membership e-books Databases Remote access to e-resources

#### A. Any 4 or more of the above

File Description	Documents
Details of subscriptions like e- journals, e-books, e- ShodhSindhu, Shodhganga membership	<u>View File</u>
Upload any additional information	<u>View File</u>

### 4.2.3 - Expenditure on purchase of books/ e-books and subscription to journals/e-journals during the year (INR in lakhs)

#### 16.63

File Description	Documents
Audited statements of accounts	<u>View File</u>
Any additional information	<u>View File</u>
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the year (Data Template)	<u>View File</u>

#### 4.2.4 - Usage of library by teachers and students (footfalls and login data for online access)

#### 4.2.4.1 - Number of teachers and students using the library per day during the year

82

File Description	Documents
Upload details of library usage by teachers and students	<u>View File</u>
Any additional information	<u>View File</u>

#### 4.3 - IT Infrastructure

4.3.1 - Institution has an IT policy covering Wi-Fi, cyber security, etc. and has allocated budget for updating its IT facilities

#### Purpose of IT Policy

- To maintain, secure, and assure the lawful and acceptable usage of the College's information technology infrastructure on campus.
- To define College-wide strategies and responsibilities for safeguarding information assets that the College accesses, creates, manages, and/or controls.
- Assisting stakeholders with the use of the College's computing resources, such as computer hardware, software, email, information resources, intranet, and Internet access.
- To give direction and information on acceptable and banned actions, as well as policy violations.

#### Scope of IT Policy

- The College IT Policy covers technology that is administered centrally or by individual departments, as well as information services provided by the College administration, individual departments, or members of the College community.
- This IT policy also covers resources administered by departments such as the Library, Computer Labs, Laboratories, and Administrative Offices of the College.
- When computers belonging to individuals or research projects of faculty are connected to the campus network, they are subject to the Do's and Don'ts outlined in the College IT policy.
- In addition, all faculty, students, employees, departments,

- approved visitors/visiting faculty, and others who may be given authorization to utilise the College's information technology infrastructure.
- IT policies broadly concentrates on the following areas

#### Guidelines for IT Hardware Installation and Maintenance

- IT Hardware Installation and Maintenance is performed by System Administrators
- Faculty and the departments can submit IT Hardware requirements based on their academic requirements.
- Procurement of IT Hardware should be initiated based on the availability of stock and the requirements submitted by the departments.
- Stock Register should be updated immediately when IT Hardware is procured.
- Maintenance of Computer Systems should be done periodically by System administrators and the same need to be recorded in Maintenance register.
- Movement of IT Hardware within the college or outside the college should be recorded in Movement Register.
- The major e-waste such as written off instruments /equipment's, CRTs, Printers, Computers, batteries should be sold regularly.
- The Faculty or The Department is solely responsible for the IT Hardware provided to them and any damage or loss or theft need to be addressed bared by them only.

#### Guidelines for Software Installation and Licensing

- College IT policy allows authorized and open source software installation on the College computers. In case of any violation the College will hold the Department/Individual personally responsible.
- Open source software should be used in their systems wherever possible.
- Licensed software need to be installed in the systems.
- Antivirus Software need to be procured and installed in the systems
- Software's used for academic and administrative purposes should adhere to ISO standards

Guidelines for Network (Intranet & Internet) Usage

- Any computer (PC/Server) that will be connected to the College network should have an IP address assigned by the System Administrators.
- An IP address allocated for a particular computer system should not be used on any other computer even if that other computer belongs to the same individual and will be connected to the same port.
- Change of the IP address of any computer by staff or student is strictly prohibited.
- Configuration of a network will be done by system administrators only.
- Access to remote networks using a College's network connection must be in compliance with all policies and rules of those networks.
- Internet and Wi-Fi facilities should be used for academic and administrative purpose only.

#### Guidelines for E-mail Accounts

- Every faculty and student is provided with an E-mail
- The E-mail facility should be used primarily for academic and official purposes and to a limited extent for personal purposes.
- Using the E-mail facility for illegal/commercial purposes is a direct violation of the College's IT policy and may entail withdrawal of the facility.
- Faculty should refrain from intercepting, or trying to break into others email accounts, as it is infringing the privacy of other users.
- Impersonating email account of others will be taken as a serious offence under the College IT security policy

#### Guidelines for Web Site Hosting

- The College Website should be used to provide academic and administrative information for its stake holders.
- Maintain up to date pages. Proofread pages and test links before putting them on the Web, and regularly test and update links.
- The contents hosted on website should be correct and clear.
- The departments, and Associations of Teachers/Employees/Students may have official Web page on Website. Official Web pages must conform to the College Web Site Creation Guidelines.
- LMS can be linked to the website so that Faculty may post class materials (syllabi, course materials, resource

#### materials, etc.) on the Web to facilitate eLearning

#### Role of Network/System Administrators

- To Design College Network and perform Backbone operations
- To follow Global Naming & IP Addressing conventions
- To review the existing networking facilities, and need for possible expansion.
- Configuring and maintenance of Wireless Local Area Networks
- To configure and maintain IT facilities provided in class rooms, Labs and Seminar halls
- To Maintain servers in the server room
- To discourage installing any unauthorized software on the computer systems of the users. They should strictly refrain from obliging such requests.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://docs.google.com/document/d/10aL2Mx WXOgBZVKeE5jpARF6V00BgXsgm/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true

#### 4.3.2 - Student - Computer ratio

Number of Students	Number of Computers
3871	1818

File Description	Documents
Upload any additional information	<u>View File</u>

# **4.3.3** - Bandwidth of internet connection in the Institution and the number of students on campus

A. ?50 Mbps

File Description	Documents
Details of bandwidth available in the Institution	<u>View File</u>
Upload any additional information	No File Uploaded

4.3.4 - Institution has facilities for e-content development:

Facilities available for e-content development Media Centre Audio-Visual Centre Lecture Capturing System (LCS) Mixing equipments and software for editing

E. None of the above

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	Nil
List of facilities for e-content development (Data Template)	<u>View File</u>

#### 4.4 - Maintenance of Campus Infrastructure

### 4.4.1 - Expenditure incurred on maintenance of physical and academic support facilities, excluding salary component, during the year (INR in lakhs)

#### 1418.72

File Description	Documents
Audited statements of accounts	<u>View File</u>
Upload any additional information	No File Uploaded

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

The Maintenance Cell of the college ensures proper functioning of all civil, electrical, water, sewage, environment, and other facilities.

The cell performs routine check-ups and repair works thereby providing good ambience in the college. A central complaint register is maintained, and the maintenance cell attends to those complaints on a priority basis. A vast majority of minor and major repairs are carried out internally, while some major repairs are outsourced. The maintenance cell is headed by Dean-Administration. The other members of the cell include Administrative Maintenance in-charge, Head of EEE department, and two senior faculty members, one each from Civil Engineering and Mechanical Engineering departments. The members of the cell meet

once in a month: review the requirements and chalks out further action that may be needed. The cell also arranges to conduct energy audit. Staff belonging to the maintenance cell perform routine cleaning of the water tanks, water coolers, filters, etc. as per schedule. Gardeners and janitors conduct cleaning of the campus premises and restrooms at least twice a day.

The regular maintenance of all the seminar halls of the institute, Open air auditorium, Portico of Block-2, open air grounds, playground etc. are supervised by the Administrative officer. The Faculty/students put a letter in the prescribed format (mentioning the date and time of requirement) seeking the allocation of the required physical facility for the respective events to be organized. After the allocation as per the availability, such information is entered in a register kept with the Administrative officer.

All OHP/LCD projectors in the institute, furniture available in the classroom, faculty/staff rooms are regularly monitored on fortnight basis for maintenance. Any complaints regarding the classroom's infrastructure will be inquired from the students of the respective classes during the class review committee meetings and the same will be reported to the Administrative officer by the respective class teacher for necessary attention. All these activities are monitored by the Maintenance cell of the institute.

Two transformers (125kVA and 200kVA) are installed in the institute to meet power requirements of the institute. We have two 25kVA and one 10kVA UPS, 240V DC supply along with Batteries for power backup. Two diesel generators 125kVA and 225kVA are used in case of power failure for smooth conduct of experiments in the laboratories. As a part of initiation in promoting the concept of green energy, a 250kW solar power station is installed in the institute. All the laboratories are provided with UPS. The maintenance cell of the institute undertakes the installation and maintenance of these equipment through monitoring at regular intervals.

Department laboratories are established catering to the curricular and co-curricular requirements. All laboratories are provided with required operating manuals for their smooth functioning. Laboratories are also kept open beyond working hours as per the requirement. Preventive maintenance of the equipment is a regular practice in all laboratories apart from breakdown

maintenance. Periodic calibration is adopted for lab equipment requiring precision and accuracy. Central workshops provide required support and maintenance works such as minor carpentry, welding, plumbing, electrical maintenance, computer systems and network, in addition to transport vehicles. The institute performs maintenance and update of college website and all software used in the college.

Each laboratory maintains a stock register for detailing the proper lab records. The lab stock register holds the complete details of lab equipment, new arrivals, replacements of old equipment, maintenance details, license details etc. Each lab is associated with a qualified Technical Staff for maintenance of all lab equipment. Any major repair of equipment beyond the scope of technical staff is outsourced. Obsolete and irreparable equipment is weeded out on regular basis. A register for "Lab equipment Repair/ Maintenance" is kept in each lab to track the breakdown time of equipment and the maintenance details. A minimum of 20% to 30% of unutilized lab slots per week are allotted for regular maintenance works of the laboratories.

The college has two central computing facilities located in the library which are also used for browsing and accessing electronic content of learning resources. The institute has established a separate maintenance cell, responsible for the maintenance works of computers, Hardware and software installations/up-gradations, wi-fi and internet maintenance. The cell is chaired by a senior faculty from Computer Science Engineering department who supervises the supporting staff required for this purpose.

The college library has audio visual content of various specializations, catering to the needs of students, staff and faculty. The college library functions beyond working hours up to 6 pm, wherein students spend their time in utilizing various facilities available in the library.

To facilitate students leaving the campus beyond working hours, a college bus is provided every day to start from college after 6 pm.

The Library has an Electronic Resource Center (ERC) which provides access to vast stores of electronic information of IEEE, DELNET and unlimited number of digital, online open resource journals of Engineering, Applied Sciences, Management and other Internet-based service to its readers.

The College has a Digital Library, which is connected to the college's intranet and providing services, such as digitalized versions of question papers, syllabus, Articles of National and International standards, e-lectures of faculty of IITs, NPTEL, IS Codes, Textbooks, CD/DVDs, videos of Spoken English, video Films, Britannica & Microsoft Encarta, Psychometric Tests, Brain Treasures, Test Your IQ, books for preparing towards GATE, GRE, TOFEL, CAT etc. The College Library has huge Reference Section of various books. In addition, Personality Development Books, and several reference books are made available.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://docs.google.com/document/d/1JTMg-W M195wuA7S-cBZFkGhAESsMPQ6x/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true

#### STUDENT SUPPORT AND PROGRESSION

#### **5.1 - Student Support**

### 5.1.1 - Number of students benefitted by scholarships and freeships provided by the Government during the year

1950

File Description	Documents
Upload self-attested letters with the list of students receiving scholarships	<u>View File</u>
Upload any additional information	<u>View File</u>

### 5.1.2 - Number of students benefitted by scholarships and freeships provided by the institution and non-government agencies during the year

70

File Description	Documents
Upload any additional information	<u>View File</u>
Institutional data in prescribed format	<u>View File</u>

#### 5.1.3 - The following Capacity Development and Skill Enhancement activities are organised for improving students' capabilities Soft Skills Language and Communication Skills Life Skills (Yoga, Physical fitness, Health and Hygiene) Awareness of Trends in Technology

Α.	All	of	the	above
----	-----	----	-----	-------

File Description	Documents
Link to Institutional website	https://docs.google.com/document/d/1JTMg-W M195wuA7S-cBZFkGhAESsMPQ6x/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true
Details of capability development and schemes	<u>View File</u>
Any additional information	<u>View File</u>

### 5.1.4 - Number of students benefitted from guidance/coaching for competitive examinations and career counselling offered by the institution during the year

210

File Description	Documents
Any additional information	<u>View File</u>
Number of students benefited by guidance for competitive examinations and career counseling during the year (Data Template)	<u>View File</u>

# 5.1.5 - The institution adopts the following mechanism for redressal of students' grievances, including sexual harassment and ragging: Implementation of guidelines of statutory/regulatory bodies Creating awareness and implementation of policies

#### A. All of the above

with zero tolerance Mechanism for submission of online/offline students' grievances Timely redressal of grievances through appropriate committees

File Description	Documents
Minutes of the meetings of students' grievance redressal committee, prevention of sexual harassment committee and Anti- ragging committee	<u>View File</u>
Details of student grievances including sexual harassment and ragging cases	<u>View File</u>
Upload any additional information	<u>View File</u>

#### 5.2 - Student Progression

#### 5.2.1 - Number of outgoing students who got placement during the year

557

File Description	Documents
Self-attested list of students placed	<u>View File</u>
Upload any additional information	No File Uploaded

#### 5.2.2 - Number of outgoing students progressing to higher education

75

File Description	Documents
Upload supporting data for students/alumni	<u>View File</u>
Details of students who went for higher education	<u>View File</u>
Any additional information	No File Uploaded

### 5.2.3 - Number of students qualifying in state/ national/ international level examinations during the year

#### 5.2.3.1 - Number of students who qualified in state/ national/ international examinations

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### (e.g.: IIT-JAM/NET/SET/JRF/ GATE /GMAT /CAT/ GRE/ TOEFL/Civil Services/State government examinations) during the year

52

File Description	Documents
Upload supporting data for students/alumni	<u>View File</u>
Any additional information	No File Uploaded

#### 5.3 - Student Participation and Activities

## 5.3.1 - Number of awards/medals for outstanding performance in sports and/or cultural activities at inter-university / state /national / international events (award for a team event should be counted as one) during the year

0

File Description	Documents
e-copies of award letters and certificates	<u>View File</u>
Any additional information	No File Uploaded

### 5.3.2 - Presence of an active Student Council and representation of students in academic and administrative bodies/committees of the institution

The Student Council, whose term is of one academic year, consists of two representatives, one male and one female student from each class, monitored by Dean, Students affairs . The student council plans and organizes various co-curricular and extra-curricular activities of the college in association with the college academic committee. Towards this end, various committees, namely, Organizing committee, Reception committee, Transport committee, Hospitality committee, Technical Events committee, Public Relations committee, Discipline committee, Cultural programmes committee, Sports committee, Prize Distribution committee, Magazine committee etc. which organize Orientation programme, Fresher's day, Alfamatica, Bhaswara, Vaisheshika, Vibgyor and Vibes. In addition, the college celebrates regional, national and international commemoration days and festivals wherein, student council members are involved in smooth conduct of the above events.

In each committee, one student representative acts as convener who convenes meetings as and when required and records the minutes of the meetings and forwards it to the Dean, Students

affairs necessitating follow up action towards the smooth conduct of events. Each committee, further selects a group of student volunteers ensuring the necessary logistic support for successful execution of events.

Student Council also contributes for enhancement of the learning experiences of students through various clubs, namely, Literary, Science, Coding, Mathematical, Fine arts, Photography, Solar, Robotics, Environment, and Srujanastra.

Each club is managed by students with the help of a faculty advisor. Various events pertaining to the concerned club are organized after college hours on regular working days, as well as on Saturdays.

In addition, it also facilitates organization of various technical activities through professional bodies namely, CSI, IEEE, IETE, ISTE and SAE.

The Student Council assists in organizing NSS activities of the college, which include conducting various health camps, distribution of school uniforms, books etc for needy children of nearby villages, distribution of various items at old-age homes, facilitating training for development of vocational skills in the people in nearby places, etc.

In addition to the above mentioned activities, the Student Council provides necessary help by teaching certain courses to the students studying in nearby schools.

It also organizes awareness programmes on health, education and environment. In association with NGOs, the student council facilitates conduct of cataract surgeries, organizes health and dental camps and distributes medicines to the needy. As a part of environment campaign, Handmade paper bags were made and distributed in the shops, making them aware of the hazards of plastic usage and its consequent disastrous effects on environment. Towards the promotion of Green revolution, every year, student council organizes tree plantation programmes in the nearby villages.

Further, anti-ragging committee, grievance redressal cell and women protection cell are formed with one or two student representatives nominated as members in each. The committees meet based on the requirements.

Entrepreneurship development cell of the college, which consists of student council members with a faculty advisor, organizes various events in association with the National Entrepreneurship Network (NEN).

Class review committees are formed with class representatives for obtaining feedback on Teaching-Learning process.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://docs.google.com/document/d/1NA0iSV yJYL508E2ua70F0iL8ed6gMvvC/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true

#### 5.3.3 - Number of sports and cultural events / competitions organised by the institution

0

File Description	Documents
Report of the event	<u>View File</u>
List of sports and cultural events / competitions organised per year	<u>View File</u>
Upload any additional information	<u>View File</u>

#### 5.4 - Alumni Engagement

- 5.4.1 The Alumni Association and its Chapters (registered and functional) contribute significantly to the development of the institution through financial and other support services
  - Alumni members are made members of BOS of various departments. They contribute in the curriculum design. They examine the current curriculum and give suggestions vis-avis the industry requirements.
  - They also give advice on the establishment of laboratories which involve experiments using modern tools for improved employability of students.
  - Alumni members are invited to deliver technical talks and proved career guidance to the students.

- Alumni members help the students in establishing a network of support for their professional career progression, namely, higher education in India and abroad, internships and placements.
- Alumni working various industries connect the placement cell of the college to their respective industries, thereby, facilitate the college with opportunities for placements of students.
- In addition, they also connect the industry-institute interaction cell of the college facilitating industrial visits, internships for students and resource persons for student development and faculty development programs.
- Alumni promote the college at various fora, thereby serving as brand ambassadors of the college, by making the audience aware about the salient features of the college as well as important developments that have been taking place in the college over the years.
- Alumni working in various R&D establishments connect the faculty of the college to their professional seniors facilitating testing requirements of as part of research carried out by faculty and also in the preparation of research proposals being submitted by the college for various funding agencies.
- Alumni, who pursued higher education abroad, help the students in securing admissions in the universities where they have studied through preparation of statement of purpose, research projects and funds available with various professors in universities. This information is extremely useful for students, since, they can approach the professors by explicitly mentioning their research interests, which may perhaps improve their chances of securing scholarship with full or partial tuition fee waiver.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional Information	https://docs.google.com/document/d/1056Ng1 CcluIOH7PUJ4cQVHgIGn51elf3/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true

### 5.4.2 - Alumni's financial contribution during the year

E. <2 Lakhs

File Description	Documents
Upload any additional information	No File Uploaded

#### 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

The Vision and Mission statements of the institution are:

#### Vision:

Geethanjali visualizes dissemination of knowledge and skills to students, who would eventually contribute to the well being of the people of the nation and global community.

#### Mission:

- To impart adequate fundamental knowledge in all basic sciences and engineering, technical and inter-personal skills to students.
- To bring out creativity in students that would promote innovation, research and entrepreneurship.
- To preserve and promote cultural heritage, humanistic and spiritual values promoting peace and harmony in society.

The vision of the college envisages the students graduating from the college contributing to national development and to the well being of global community. The mission of the college is to produce technocrats equipped with sound knowledge in basic sciences and technical skills, human values, and zeal to serve the community, leading to realization of the vision.

Realization of the vision of the college calls for good governance, which requires establishment of structures and processes, designed to ensure accountability, transparency, responsiveness, equity, empowerment, and participation. In line with these needs, and as per the guidelines of UGC for autonomous colleges, the following statutory committees are constituted, which provide proper management of academic, financial, and general administrative affairs of the college.

Governing Body

- Academic council
- Boards of studies
- Finance Committee

In addition, there are several non-statutory committees for specific functions to assist in the overall governance of the college. The college promotes a culture of participative management, extending down to the level of Assistant Professor, among the faculty.

The Principal of the college, as the head of the institution is vested with the overall responsibility to plan, organize, and control the academic activities, delegating authority to deans, heads of departments, committees and sections in-charge for carrying out the day to day functions of the institution.

The organization of the college is structured into departments/sections, and groups/divisions within the departments. To assist the Principal, Deans and HoDs in the performance of their functions, several committees are formed at the institutional and department levels, comprising the faculty at all levels. The committees are empowered to deliberate, investigate, and recommend actions on various issues that are referred to them. Thus, participation in decision making goes right down to Assistant Professors.

The perspective plan for the college is developed by the Planning and Monitoring Board, the broad parameters of which are indicated by the Governing Body. The perspective (strategic) plan is aimed at achieving the strategic goals of the college, which are set to align with its Vision and Mission. The strategic plan is translated into operational goals and plans for the departments, providing for achievement of targets in a phased manner over the plan period. Thus, all the planned activities at department level can be traced back or mapped to strategic goals derived from the Vision and Mission of the college.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional Information	https://docs.google.com/document/d/16FuyEl yuDmPUI-oH18Q54hZt52fXPxFN/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true

### 6.1.2 - Effective leadership is reflected in various institutional practices such as decentralization and participative management

Geethanjali College of Engineering and Technology has a well laid practice of decentralization and participative management. Different committees, councils and cells are constituted viz., College Academic Council, Board of studies, Program Assessment Committee, College Academic committee, Research Committee and IQAC Cell etc. The roles and responsibilities of each committee/cell bearers and authorities and the structure of such organisational units are defined at the time of formation. A case study showcasing the practice of decentralization and participative management in the development of Course Outcomes, Course delivery methodology, Course attainments and Program Assessment is discussed below:

The objectives are accomplished with the participation and coordinated functioning of the faculty at different levels, their roles being as follows:

1. Program Assessment Committee (PAC)

PAC consists of Head of the Department (Program Coordinator unless the department offers more than one program) as the chairperson and Senior faculty members. The committee meets at least once in each semester to review the progress of the program.

The committee monitors attainment of Course Outcomes (COs), Program Outcomes (POs) and Program Specific Outcomes (PSOs) with the major focus being the cumulative learning of the students undergoing the program.

- 1. Program Coordinator- In association with senior faculty, oversees all the courses offered by the department;
  - Appoints Course Coordinators for each course offered and administered by the department;
  - Reviews the performance of students undertaking courses offered by the department;
  - Ensures College's quality assurance processes for assessment in courses along with Academic Regulations, are implemented;
- Course coordinators Discusses the course and its relationship to other courses within the program with the Program Coordinator

- Develops course outcomes for the course
- Schedules and conducts an orientation to the course for faculty, particularly who are new to the course.
- Develops a meaningful and well-connected topic sequence and schedules the same in consultation with other course instructors involved in the course and ensures adhering to the same.
- Develops valid and reliable methods to evaluate student learning outcomes
- 2. Class Advisers (Section Advisor) Discusses all potentially significant issues and establishes good communication with the students thereby making them fully aware of their responsibility to meet performance standards.
  - Conducts weekly reviews with Counsellors, monitors student progress and documents reviews to establish a record of trends in overall class performance.
- 1. Question Paper Evaluation Committee It consists of HoD, a few senior Professors Department IQAC representative and an invitee from other department. Chaired by the HoD, the committee examines the following:
  - Mapping of course outcomes to Program outcomes vis-àvis the questions
  - Bloom's Taxonomy level
  - Discriminating power to distinguish bright and average student
  - Specific and precise nature of questions as well as uniform coverage of the content.

All the above clearly indicate decentralization at the department, wherein, faculty members participate not only in administering, monitoring the Teaching-Learning process, but also, in the evaluation and assessment of COs, POs and PSOs.

File Description	Documents
Upload strategic plan and deployment documents on the website	<u>View File</u>
Upload any additional information	No File Uploaded
Paste link for additional Information	https://docs.google.com/document/d/1fSvvGpmcAntMMjJjAX9JkWL2AGooJuBV/edit?usp=sharing&ouid=105062712823366765579&rtpof=true&sd=true

#### **6.2 - Strategy Development and Deployment**

#### 6.2.1 - The institutional Strategic/Perspective plan has been clearly articulated and implemented

Academic and Administrative Process for improved Teaching Learning (TL)

Teachinginvolvesplanning and implementation of instructional activities and learning experiences meeting intended learning outcomes. Towards this, a systematic and sustainable, academic and administrative process, practiced by the institute facilitating improved Teaching-Learning, is given below:

Workload allocation: completed in departments a month before the conclusion of the semester in progress. Senior most teachers allocated second and third year classes, take the first two periods, ensuring students attend college on time.

Tutorial sessions conducted with two faculty members, making instruction more effective.

Group/cooperative learning is often conducted with one period/week in courses not having tutorial sessions.

Quick and slow learners are identified, learning paced accordingly.

Mentoring is conducted motivating quick learners to take up project-based learning, participate in co-curricular activities, explaining opportunities available for higher education. Slow learners are counselled to associate themselves with quick learners and provided remedial teaching.

Reduced class strength for improved TL: In ECE and CSE, each with 240 students, divided into five sections with 48/section instead of 60/section.

A senior faculty designated as Course Coordinator, with expertise in the field, conducts meetings with other faculty teaching the same course, oversees progress of learning, and gives suggestions accordingly.

Feedback is obtained from students on TL of each course, twice a semester, first immediately after three weeks of commencement of the semester, faculty are counselled, if feedback < 70%, second, one week before conclusion of the semester, passed to respective faculty for necessary action.

Class review meetings are held, four times a semester, feedback obtained on TL, passed to faculty for needed adjustments.

Weekly reports on course progress are collected and reviewed necessitating action.

Faculty grouped as per Specializations in each department interact closely on various aspects pertaining to courses of the specialization for improved learning.

Course end survey, conducted at the conclusion of each course, facilitates necessary modifications, when offered next.

Attainment of Course Outcomes, Program Outcomes (POs) and Programme Specific Outcomes (PSOs) carried through assessment of examinations and indirect assessment.

A question paper evaluation committee in department evaluates question papers against various parameters, takes necessary actions, ensuring a balanced question paper.

Interaction with experts in the field through Guest Lectures, Industrial Visits, and Field trips is facilitated, making students familiar with occupational awareness, what engineers do, language and process of design, non-technical side of engineering, sustainable development etc.

Program Assessment Committee (PAC) meets at the middle of each semester, discusses problems encountered in TL of various courses, suggests remedial measures; again at the end of the semester, reviews performance of students and gives suitable

suggestions for improved performance, when offered next. PAC also suggests value added courses, and other training programs including programming, aptitude, soft skills and situational writing skills.

Graduate exit survey is conducted on POs and PSOs. Appropriate action is taken through curriculum modification for enhanced student performance of future batches.

Impact of all the above has been resulting in significant improvement in learning and considerable increase in employability in the last two years.

File Description	Documents
Strategic Plan and deployment documents on the website	<u>View File</u>
Paste link for additional information	https://docs.google.com/document/d/14ziOco SOkLNIU q-Lx36MOKS5EmGtDnh/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true
Upload any additional information	<u>View File</u>

6.2.2 - The functioning of the various institutional bodies is effective and efficient as visible from the policies, administrative set-up, appointment and service rules, procedures, etc.

The organogram of the institution depicts organizational structure of the college.

The Principal is Head of the Institution. Institute is organized into Academic & Administrative departments

The Governing Body, the apex statutory body, guides in the development of and approves the Vision, Mission, and Quality policy of the institution, gives direction to the institution and monitors its performance.

Other statutory bodies of the college are: Academic Council (AC), Boards of studies, and Finance committee.

The college has a number of non-statutory committees overseeing the function of

Library, Examinations, Grievance Redressal, IQAC, Women Protection Cell, Purchase, Anti Ragging, and Canteen. In addition, Planning & Monitoring Board is constituted to assist the Principal/Chairman in the administration of the college.

Dean, Academic, Prepares Academic Calendar with complete schedule of various activities, monitors progress of class work, student counseling/mentoring, directing and supervising student activity programs.

The Registrar (Dean, Administration) along with Dean, Academic assists Principal in administering and leading the college within the policy framework developed by AC and College Academic Committee, in the completion of administrative details and tasks required to maintain an efficient operational pattern for the college.

Controller, Examinations

Coordinates with external examiners, affiliating university officials and with all concerned in the college, ensuring smooth conduct of all examinations and evaluation, including timely declaration of results.

Dean, RD&C

Formulates research and consultancy policies of the institute, processes research and publications proposals submitted by faculty; recommends internal seed money and other forms of assistance for projects.

Identifies areas/institutes for rendering consultancy services.

Dean, SA

Facilitates/coordinates formation of student council, maintains student discipline, supervises anti ragging committee and conducts all extracurricular activities.

Dean, Industry Institute Interaction develops close links with various industries by interaction programs, facilitates MoUs with various industries

Dean, computing services

Oversees and facilitates all IT infrastructure requirements and arranges for smooth conduct of all IT enabled activities of the institute.

Dean, IQAC

Initiates and administers all quality initiatives of the college.

Arranges for conduct of internal and external academic and administrative audit.

Dean, CACHE

Oversees and administers all career guidance and development programs facilitating students acquire employability and career progression skills.

Dean, EDC

Facilitates the spirit of entrepreneurship by conducting entrepreneurial development programs, promoting flavor of entrepreneurship engulfing nascent minds of students.

Dean, IC

Nurtures the seed of creativity and innovation by fostering a culture of product development through prototypes resulting in entrepreneurship in the form of a start-up inviting and involving venture capitalists.

Dean, School of Computer Science and Informatics

Oversees smooth functioning of the departments of CSE, IT and CSE-Emerging areas, ensuring optimal utilization of all resources pertaining to these departments.

Dean, School of Electrical and Communication Engineering

Oversees smooth functioning of the departments of ECE and EEE and ensuring development of quality initiative measures for improving the employability of the students in core sectors.

HoD

Administers smooth conduct of all academic and administrative activities of the department.

In association with other BoS members, develops curricula for all programs administered by the department.

File Description	Documents
Paste link to Organogram on the institution webpage	http://www.geethanjaliinstitutions.com/eng ineering/about-geethanjali.html
Upload any additional information	<u>View File</u>
Paste link for additional Information	https://docs.google.com/document/d/16gqLL6 mxHPLAWBmxzQFl3j4gEVbFGcTj/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true

# 6.2.3 - Implementation of e-governance in areas of operation: Administration Finance and Accounts Student Admission and Support Examination

#### A. All of the above

File Description	Documents
ERP (Enterprise Resource Planning) Documen	<u>View File</u>
Screen shots of user interfaces	<u>View File</u>
Details of implementation of e- governance in areas of operation	<u>View File</u>
Any additional information	<u>View File</u>

#### **6.3 - Faculty Empowerment Strategies**

6.3.1 - The institution has effective welfare measures for teaching and non-teaching staff and avenues for their career development/ progression

Provide the list of existing welfare measures for teaching and non-teaching staff in maximum of 500 words

The following schemes/benefits are offered by the institution, for the welfare and career development of the teaching and Nonteaching staff.

 EPF contribution by Management to all the eligible staff members

- Free Medical facility at the institute
- Free transport to administrative staff.
- Vehicles, and bus passes to Messengers.
- Public transport bus passes to all drivers.
- Special allowances to faculty deputed to Examination department.
- Need Based financial assistance to staff
- Cell-Phones and Laptops to HODs for better connectivity and networking
- CLs, HPLs, CCL, Medical Leave and Examination Leaves as per their eligibility.
- Paid Maternity Leave for female employees.
- o Special leave to staff on the occasion of their marriage.
- Health Awareness camps within campus and Free Medical Checkups.
- Fee concession to children of staff members who are studying in GCET.
- Sponsorship to faculty attending FDPs, Conferences etc.
- Canteen facility for students and staff.
- Uniforms, washing allowance for Attendants, Ayahs and Drivers.
- Paid leave @ one day/Week as incentive to faculty pursuing Ph.D.
- ESI benefit to all eligible employees.
- Salary advance for staff in times of need.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://drive.google.com/file/d/1mMpqcoC5o 40iUVHod2mFygDizoI-WydX/view

### 6.3.2 - Number of teachers provided with financial support to attend conferences / workshops and towards payment of membership fee of professional bodies during the year

18

File Description	Documents
Upload any additional information	No File Uploaded
Details of teachers provided with financial support to attend conference, workshops etc during the year (Data Template)	<u>View File</u>

### 6.3.3 - Number of professional development / administrative training programmes organized by the Institution for its teaching and non-teaching staff during the year

18

File Description	Documents
Reports of the Human Resource Development Centres (UGC HRDC/ASC or other relevant centres)	<u>View File</u>
Upload any additional information	<u>View File</u>

# 6.3.4 - Number of teachers who have undergone online/ face-to-face Faculty Development Programmes during the year: (Professional Development Programmes, Orientation / Induction Programmes, Refresher Courses, Short-Term Course, etc.)

660

File Description	Documents
Summary of the IQAC report	<u>View File</u>
Reports of the Human Resource Development Centres (UGC ASC or other relevant centers)	<u>View File</u>
Upload any additional information	No File Uploaded

#### 6.4 - Financial Management and Resource Mobilization

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

External financial audit: The college conducts external Financial Audit by a Chartered Accountant every year. The audit observations submitted to the management by the audit company are examined carefully and corrective actions taken, where required. The Financial statements, namely, income and expenditure account and balance sheet are filed with the income tax returns to the IT department every year. All the audit reports have been found to be in order, but for a few minor errors of omission due to oversight by the accounting personnel. These errors are rectified by way of checks and balances, strengthening financial accounting and budgetary control systems.

Internal financial audit: The college constitutes separate internal committee for conducting verification of assets/capital

equipment and for financial audit. Audit of assets and capital equipment are conducted through stock verification by the committee and based on shortages reported, if any, action for write-off is taken with the approval of competent authority and the items are removed from the asset registers. Similar action is taken in respect of books/journals/documents. The internal audit committee, besides inspecting the books of account and records maintained by the finance department evaluates internal control system, particularly in respect of purchases, scholarships etc. The audit report is submitted to Principal/Chairman and subsequently Principal directs departments to take follow up action for closing the deficiencies and making changes in systems and procedures as called for.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	http://www.geethanjaliinstitutions.com/eng ineering/img/downloads/Teja%20Edu%20Audit% 20Report.pdf

### 6.4.2 - Funds / Grants received from non-government bodies, individuals, and philanthropists during the year (not covered in Criterion III and V) (INR in lakhs)

0

File Description	Documents
Annual statements of accounts	<u>View File</u>
Details of funds / grants received from non-government bodies, individuals, philanthropists during the year	<u>View File</u>
Any additional information	No File Uploaded

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

Resource Mobilization Policy and Procedures

The policy of the college with regard to mobilization of funds is as follows:

The main source of funds for the college is the Tuition fee and other miscellaneous fees collected from the students.

#### The other sources of funds are:

- Loans from banks in the form of term loans and operational/working capital loans, including overdraft facility
- 2. Unsecured loans from non-bank financial institutions
- 3. Grants received from Government bodies like AICTE, JNTUH, DST etc., for organizing faculty development programs, seminars, workshops, modernization of labs/workshops and execution of projects.
- 4. Institutional corpus fund

The fees collected from students as Examination fee for conduct of semester End Examinations in another major source of funds However, this income is meant for and is used exclusively to meet all examination related expenses.

Procedure: The accounts section of the college prepares, monthwise cash flow statements, two months in advance. The cash outflow statement is based on institutional budget estimates and additional inputs form departments for unanticipated major expenses, and contingency expenses. The cash inflow (income) statement is prepared based on the schedules for admissions, commencement of classes indicated in the Academic calendar, and examination time tables. The Accounts department notifies the fee payment schedules to students to alignment with cash requirements as per projected cash inflow statement. If there are indications of fee collection being short of estimates, vigorous efforts are made through academic department staff and fee counselor to increase the receipts. The gap between the actual income and the estimated expenses is bridged through loans from banks/non-bank financial institutions as per the policy guidelines.

Periodically, a review of the adequacy of limits for term and operational loans sanctioned by banks is carried out by the college management and the Principal. If the sanctioned limits are found to be inadequate, the banks are approached for enhancement of the sanctioned limits, with proper justification.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional Information	https://www.geethanjaliinstitutions.com/engineering/iqac.html

#### **6.5 - Internal Quality Assurance System**

- 6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing quality assurance strategies and processes visible in terms of incremental improvements made during the preceding year with regard to quality (in case of the First Cycle): Incremental improvements made during the preceding year with regard to quality and post-accreditation quality initiatives (Second and subsequent cycles)
- 1. Structuring of department for improved scholarly activities and ease of administration through decentralization.

Each department is structured into four/five groups as per specializations.

Each group is led by a Professor in the corresponding specialization, with 2/3 well experienced faculty identified as lead faculty.

Group Head along with lead faculty act as Mentors for other faculty of the group, interacting closely, guiding them in their academic and research pursuits.

Group head and lead faculty during their close interaction, identify overlapping components in the curriculum pertaining to their group and recommend for merger of courses, if any, as well as introduction of new courses including electives in emerging areas, and value added courses to the Board of studies.

This structure has been promoting a healthy mentor-mentee relationship among faculty, providing more learning opportunities for junior faculty.

It has also been facilitating in the creation of a fairly good talent pool and establishment of a second rung leadership in various specializations of the department providing value added teaching learning process and inculcating research culture, also enabling smooth administration/functioning of the department.

In addition, it has been facilitating identification of resource persons for conduct of Guest Lectures for FDPs and SDPs. With this structure, junior faculty have been able to identify research guides and platforms for publication of research work.

Junior faculty have also been able to associate themselves with all departmental/college's cultural, and other activities promoting a healthy collegial spirit among themselves, thereby facilitating the administration in the development of potential leaders and identification of talent.

The above structure, kept in place since January 2017, has been bringing in incremental improvements in the teaching-learning process of theory courses, laboratory instruction, project/problem based learning, research publications and patents filed.

2. A systematic process for the holistic development of students:

College has established following centres for mentoring students to identify their potential and accordingly guides them in the realization of their aspirations.

Centre for Academic and Career Guidance:

It has been facilitating students realizing their career priorities and goals; providing them with skills needed to help manage their career throughout their professional life. Also, helping students assess their aspirations and capabilities through personalized mentoring and psychometric tests. In addition, students are advised regarding their career options, study opportunities and assisted accordingly.

Centre for Soft Skills Development: Facilitating students develop Communication skills, Positive attitude, Ethics and Integrity, Resilience, Adaptability, Self-regulatory skills, Interpersonal skills and teamwork, Leadership, Social Skills, and Etiquette.

Incubation Centre: Led by some faculty who served in IT and Electronics industry, students are facilitated with design, development and implementation of innovative projects, enabling them acquire design and analytical thinking skills. In addition, students develop business awareness with entrepreneurial outlook.

Training and Placements Cell: Facilitating training for placements, enabling students get placed through ON campus recruitment including pooled campus and OFF campus recruitments. By coordinating with industry-institute interaction cell of the college, providing students with industry visits, summer internships, LIVE project support for final year students selected through ON/Pool Campus drives.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://docs.google.com/document/d/1QTRqcP biEPgm4h0j2xHjzQrb0wjcY_Nw/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true

6.5.2 - The institution reviews its teaching-learning process, structures and methodologies of operation and learning outcomes at periodic intervals through its IQAC as per norms

A)Periodical Review of Teaching-Learning Process (TLP) by IQAC for attaining Learning Outcomes:

A detailed academic calendar that includes all academic activities is prepared well in advance before the beginning of the semester.

Course allocation is done based on the expertise of the faculty taking into account various considerations.

Timetables are prepared with dedicated time slots for regular class work, tutorials, remedial classes, seminar, mentoring, Training and Placement activities, etc.

Individual faculty members prepare Teaching plan indicating topics with correlation to the Course Outcomes (COs), Program Outcome (POs) and Program Specific Outcome (PSOs).

All faculty members submit Course files detailing various aspects that include Lesson plan and Laboratory plan for conduct of theory and laboratory sessions to their respective course coordinators/Group Head and Program Coordinator/Head of the department as the case may be in a well-defined format specified by IQAC, which is checked for content.

A detailed lesson plan with the following is prepared for each lecture session:

Outlining learning objectives and outcomes

Develop Introduction

Learning activities

Collecting feedback on understanding

Summarization

The lesson plans are discussed during course coordinator's meetings with other faculty teaching the same course.

Curriculum is enriched with a couple of guest lectures, a few industrial visits and Internships.

Continuous monitoring of attendance and performance of students is done by class adviser, mentor and faculty teaching various courses for the class and students are apprised of the same during lectures, lab sessions, mentored and cautioned whenever necessary.

A continuous internal examination and evaluation system is kept in place.

In tune with the outcome-based education approach, the question papers for the internal class tests prepared are evaluated by a question paper evaluation committee, following Bloom's taxonomy, uniform distribution of questions vis-a-vis syllabus, enabling assessment of the attainment of Course Outcomes for each course.

Prompt communication sent to parents about their ward's attendance and performance through SMS.

Internal marks and student list with shortage of attendance are displayed on notice boards and parents are informed of the same.

Student feedback on TLP is taken twice in a Semester, one immediately after three weeks of instruction from the commencement of the semester, final just before conclusion of the semester through a structured questionnaire. It is reviewed by Head of the department, Dean, Academics and Principal and is communicated to faculty members. Faculty member with <70% feedback is counseled for improvement.

In addition, course coordinator meetings and class review meetings are conducted ensuring a certain degree of quality TLP across all sections for attaining outcomes.

Parent-teacher meeting is conducted twice a semester to enable

discussion, obtaining parent feedback and taking improvement measures.

B)Monitoring of Programs through Feedback by IQAC and Peer Review by conducting Audit (Internal and External)

We believe that peer review of our programs through feedback and audit (internal and external) help in strengthening our programs. Hence feedback on several aspects is collected, analyzed and appropriate measures taken. We also conduct audit of our programs at the end of each academic year to sustain quality.

Towards this, our college's IQAC has designed a meticulously planned framework detailing various processes starting from course allocation, preparing course file, academic diary that contains record of classes conducted, topics discussed, student attendance record, mentoring book, weekly reports, class review meetings, and course coordinator's meetings with faculty teaching same course to various other sections, guidelines for designing experiments, conduct of laboratory sessions, allocation of student projects and preparing question paper, minutes of Question Paper Evaluation Committee, Program Assessment Committee, etc.

College Academic Committee periodically evaluates the effectiveness of TLP, pedagogical practices and processes outlined by IQAC. Students' learning in the form of knowledge absorption and content assimilation is regularly monitored by IQAC through an internal audit process:

Internal Audit: At Department

All faculty members maintain academic record book (attendance register of students) and record daily lectures delivered, tutorial sessions, if any, practical/laboratory sessions conducted and other such activities performed.

The academic record is periodically monitored by Course Coordinator/Group Head/HoDs by checking topics covered by faculty member.

On the basis of this report, if syllabus coverage is not progressing satisfactorily as per schedule, the concerned faculty is advised to take extra classes to cover syllabus in time, which

#### is ensured.

The Head of the Department reviews the various academic activities during the department meetings and guides faculty members accordingly.

#### At College

IQAC has prepared a format to conduct internal academic audit across various departments after the conclusion of each academic year.

The internal audit is conducted through senior faculty drawn cross/ inter-departmental to evaluate efficacy of college's TLP and associated administrative aspects and reports on the findings of the committee are submitted, which are forwarded to the departments for taking necessary action. Departments subsequently submit Action Taken Report (ATR) to IQAC, which verifies against the findings submitted earlier, and if found satisfactory, files it, else departments shall be informed to take appropriate measures.

#### External Audit

The college's IQAC has started administering external audit since the academic year 2018-19 by inviting senior academicians, with one for each department from other autonomous reputed colleges. Over and above, a former Principal/Dean of a reputed college is invited as the chairperson of the external audit team. External expert team visits all departments conducts audit for one complete day on the performance of the college's TLP and associated administrative aspects as per the given format, shared at least a few weeks prior to the visit of the team. The team submits its report and departments take appropriate action on the findings of the report by submitting compliance.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional information	https://docs.google.com/document/d/1M123Y0 M9XnH3C51B8h06Wu9mcx2lzQsK/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true

- 6.5.3 Quality assurance initiatives of the institution include Regular meeting of the IQAC Feedback collected, analysed and used for improvement of the institution Collaborative quality initiatives with other institution(s) Participation in NIRF Any other quality audit recognized by state, national or international agencies (such as ISO Certification)
- A. Any 4 or all of the above

File Description	Documents
Paste the web link of annual reports of the Institution	https://docs.google.com/document/d/1CZ5vLN fjCHFP5_mDbwqY0i-uh4WrOgT0/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true
Upload e-copies of accreditations and certification	<u>View File</u>
Upload details of quality assurance initiatives of the institution	<u>View File</u>
Upload any additional information	<u>View File</u>

#### INSTITUTIONAL VALUES AND BEST PRACTICES

#### 7.1 - Institutional Values and Social Responsibilities

7.1.1 - Measures initiated by the Institution for the promotion of gender equity during the year

Description of gender equity & sensitization in curricular and cocurricular activities:

The Institution has defined procedures for gender equity and sensitization in curricular and co-curricular activities. Gender equity is observed and visualized in all Curricular, Co-curricular, and Extra-curricular activities conducted every year in this Institute.

1. Support from academic program: 'Gender Sensitization' has been introduced in the year 2016 to all undergraduate students of this Institution and has become a part of our curriculum. Interactive sessions of this course spreading over the entire semester manifest the impetus of course contents. As part of our academic programme, students of

both gender participate in various curricular namely, laboratory work, internships, mini and major projects, technical and project seminar, wherein, they cooperatively and collaboratively work together. During this period, they are made to understand the behavioral nuances of working with the opposite gender. In particular, male students are made to understand the gynecological problems that women face and are advised to support them accordingly. Case studies are discussed about sharing of domestic work since most of the present day women are also working and face similar work pressures like men. Students are also advised to maintain a healthy distance so that the women do not feel embarrassed at any point of time. Further, students are also counseled not to discuss topics that may have gender bias leading to unpleasant situations.

2. Support from extracurricular activities:

Students participate in various extracurricular activities such as 36 hour Hackathons, IEEE's 24 hour programming contest, project exhibitions, paper and poster presentations etc. In all these activities, students form groups involving both genders, which would facilitate them in understanding the sensitivities of working with the opposite gender.

- 1. Support from non-academic bodies:
- 1. IEEE Women in Engineering (WiE) affinity group was established in the college in 2016. Gender equity and sensitization, the process of creating awareness and promoting equality among all genders, have been achieved through several awareness programs organized. Twelve awareness programs have been conducted since the inception of WiE, aiming at performing and practicing 'Gender equity and sensitization'.
- 2. Women Protection Cell (WPC): This cell has been in existence since 2015 and is reconstituted every two years. The latest constitution was in the academic year 2020-21. WPC comprises twelve faculty members, structured with a Presiding officer, one external member and ten members with representation from all the departments. This cell periodically meets and reviews the complaints received from female faculty and students if any, in particular, cases involving harassment of women. WPC enquires the complaints raised and recommends disciplinary action. Apart from punitive actions, WPC creates awareness on preventive measures by conducting workshops and seminars sensitizing

all concerned.

3. Safety and Security of women: Women security personnel are recruited in the college to support female faculty, staff and students. All prominent locations of the campus are under CCTV surveillance. Women have been provided with separate waiting rooms and telephone numbers of SHE-TEAMS of Hyderabad police, suggesting them to take necessary help as and when needed.

File Description	Documents
Upload any additional information	<u>View File</u>
Paste link for additional Information	https://docs.google.com/document/d/1T5Ns9K NZzxZaE4xBsILRiZ7MgkPYQZWP/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true

# 7.1.2 - The Institution has facilities for alternate sources of energy and energy conservation: Solar energy Biogas plant Wheeling to the Grid Sensor-based energy conservation Use of LED bulbs/power-efficient equipment

C. Any 2 of the above

File Description	Documents
Geotagged Photographs	<u>View File</u>
Any other relevant information	<u>View File</u>

7.1.3 - Describe the facilities in the institution for the management of the following types of degradable and non-degradable waste (within a maximum of 200 words)

The institute's operations result in generation of waste which can be broadly classified as:

- 1. Solid Waste
- 2. Liquid Waste and
- 3. E-Waste

The institute's practices with regard to storage and disposal of waste are described below.

Solid Waste Management:

The solid waste generated in the institute includes rubber tyres, metal scrap, paper, plastics, old newspapers, used papers and journal files: These are segregated, stored separately and given away to scrap dealers, twice in a year.

Apart from dry solid waste, food waste from canteens is collected by authorized agents for use as cattle feed.

#### Liquid Waste Management:

The liquid waste generated in the institute includes sewage, laboratory, and canteen effluent waste. which are discharged to Keesara Mandal Drainage System.

E-Waste Management: Electronic waste is created when an electronic product is discarded after the end of its useful life, such as computer systems, monitors etc.

Old computers and LCD Projectors are transferred to the Government schools, which are located in Cheeryal, Yadgarpaly and nearby villages which will help the students studying in them.

All the miscellaneous e-waste such as CDs, Batteries etc. are delivered for safe disposal through dealers in electronic goods.

File Description	Documents
Relevant documents like agreements/MoUs with Government and other approved agencies	<u>View File</u>
Geotagged photographs of the facilities	<u>View File</u>
Any other relevant information	No File Uploaded

7.1.4 - Water conservation facilities available
in the Institution: Rain water harvesting
<b>Bore well /Open well recharge Construction</b>
of tanks and bunds Waste water recycling
Maintenance of water bodies and
distribution system in the campus

A. Any 4 or all of the above

File Description	Documents
Geotagged photographs / videos of the facilities	<u>View File</u>
Any other relevant information	No File Uploaded

#### 7.1.5 - Green campus initiatives include

## 7.1.5.1 - The institutional initiatives for greening the campus are as follows:

- B. Any 3 of the above
- 1. Restricted entry of automobiles
- 2. Use of bicycles/ Battery-powered vehicles
- 3. Pedestrian-friendly pathways
- 4. Ban on use of plastic
- 5. Landscaping

File Description	Documents
Geotagged photos / videos of the facilities	<u>View File</u>
Various policy documents / decisions circulated for implementation	<u>View File</u>
Any other relevant documents	No File Uploaded

#### 7.1.6 - Quality audits on environment and energy undertaken by the institution

# 7.1.6.1 - The institution's initiatives to preserve and improve the environment and harness energy are confirmed through the following:

D. Any 1 of the above

- 1. Green audit
- 2. Energy audit
- 3. Environment audit
- 4. Clean and green campus recognitions/awards
- **5.**Beyond the campus environmental promotional activities

File Description	Documents
Reports on environment and energy audits submitted by the auditing agency	<u>View File</u>
Certification by the auditing agency	<u>View File</u>
Certificates of the awards received	<u>View File</u>
Any other relevant information	No File Uploaded

- 7.1.7 The Institution has a disabled-friendly and barrier-free environment: Ramps/lifts for easy access to classrooms and centres Disabled-friendly washrooms Signage including tactile path lights, display boards and signposts Assistive technology and facilities for persons with disabilities: accessible website, screen-reading software, mechanized equipment, etc. Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading materials, screen reading, etc.
- A. Any 4 or all of the above

File Description	Documents
Geotagged photographs / videos of facilities	<u>View File</u>
Policy documents and brochures on the support to be provided	<u>View File</u>
Details of the software procured for providing assistance	<u>View File</u>
Any other relevant information	No File Uploaded

7.1.8 - Describe the Institutional efforts/initiatives in providing an inclusive environment i.e. tolerance and harmony towards cultural, regional, linguistic, communal, socio-economic and other diversities (within a maximum of 200 words).

Our college organizes co-curricular and extra-curricular activities to promote various skills in students, create awareness and emphasis importance of empathy-oriented compassion, cultural, regional, religious, linguistic and communal tolerance needed in a highly pluralistic society.

Geethanjali has established several student clubs viz. Fine arts club, Photography club, Environmental club etc. which have been conducting various activities that have been playing a vital role in promoting and building an inclusive environment in the institution.

Mandatory courses in curriculum, namely, Environmental science, Human Values and Professional Ethics help students in understanding the importance of sustainable development.

Traditional day is observed as a celebration of India's diverse culture, wherein, faculty, staff and students wear traditional attire symbolizing their home state, promoting awareness of various cultures prevalent in Indian society.

GCET celebrates National Festivals, Independence Day, Republic Day and commemoration days of eminent personalities by conducting Blood Donation camps, Orientation Programs, explaining the importance and benefits of community service involving both faculty and students. We also conduct several games, sports, debates, essay writing competitions on important National days, signifying their importance, wherein students participate in large numbers.

All these activities have been helping students exhibit tolerance and harmony towards cultural, regional, linguistic, and communal aspects.

File Description	Documents
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	<u>View File</u>

7.1.9 - Sensitization of students and employees of the institution to constitutional obligations: values, rights, duties and responsibilities of citizens:

We at Geethanjali strongly believe in Maslow's theory of motivation, which at the highest level of its pyramid specifies "Self-Actualization", the purpose of existence of human life in this world is to serve mankind. Towards this, we consider

education in general and higher education in particular, is to facilitate realization of human potential by making its stakeholders, particularly students, teachers, and higher educational administrators conscious of human values and societal development.

Geethanjali College of Engineering and Technology (GCET) believes that involving students in activities pertaining to strengthening core values help them in becoming responsible citizens.

In this context, we have been organizing blood donation and free vaccination camps, medical camps, giving infrastructural support for the physically challenged (through ramps, lifts, large washrooms, wheelchair facility etc), and student induction programs through volunteering. Apart from this, a sense of security is also built through Women Protection cell and Anti ragging committees established at GCET.

We believe that human values may be innate as well as acquired. When we have love, compassion and a willingness to sacrifice our interests for others, it becomes a service. Values are to be learnt through practices. Hence, we at Geethanjali bear in mind that we are being watched and observed by peers and conduct ourselves as role models for others. Inculcation of Human Values is demonstrated first by teachers and imbibed by the student later. Faculty members participate in Universal Human Values programs sponsored by AICTE. Courses on "Human Values and Professional Ethics", and "Indian Ethos" delivered through YouTube videos, real life examples, case studies and anecdotes are presented giving rise to various perspectives on situations in life, creating an everlasting impression on student's mind, touching student's heart, bringing a paradigm shift in their thought process towards life. They are largely instrumental in bringing integrity, competence and building a stronger character.

Formal and informal, co-curricular and extracurricular activities facilitate students to assume higher responsibility, thereby rising to the occasion with goals oriented towards societal development. Students develop an attitude to look at every challenge as an opportunity to improve or innovate for societal benefits.

Student mentoring is a well-designed and planned activity wherein the student is continuously supported and guided focusing on building student's character, with an objective of making student behave as a responsible citizen. The college has been facilitating holistic development of students towards a more balanced life, profession and happiness, by encouraging them to interact with a galaxy of personalities from various walks of life. We have been organizing technical symposia, project exhibitions, activities through student clubs, celebrations of national and international commemorative days, events and festivals promoting holistic development of students thereby making them become not only technically sound professionals contributing to technological advancements, and growth of the economy, but also become "Good Global Citizens" promoting peace and harmony in the Society for sustainable development of mankind.

File Description	Documents
Details of activities that inculcate values necessary to transform students into responsible citizens	<u>View File</u>
Any other relevant information	No File Uploaded

7.1.10 - The institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic sensitization programmes in this regard: The Code of Conduct is displayed on the website There is a committee to monitor adherence to the Code of Conduct Institution organizes professional ethics programmes for students, teachers, administrators and other staff Annual awareness programmes on the Code of Conduct are organized

A. All of the above

File Description	Documents
Code of Ethics - policy document	<u>View File</u>
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programmes, etc. in support of the claims	<u>View File</u>
Any other relevant information	No File Uploaded

### 7.1.11 - Institution celebrates / organizes national and international commemorative days, events and festivals

The vibrant student clubs, and centers of the college conduct many National and International commemorative days, events and festivals. The gaiety of all Festivals, both National and International are celebrated enthusiastically keeping in mind the traditions of the Indian Diaspora and Environmental Protection. The jubilations encourage in sensitizing the young minds to foster a spirit of Multiculturalism. Snippets of a few events celebrated are given hereunder.

#### International:

World Environmental Day (June 5). The Environmental Club of the college systematically hosts programs to enlighten the students about restoration and protection of Nature for environmental sustainability through Tree Plantations and "Save Energy" campaign. Special drives, namely, Haritha Haram, making Ecofriendly Vinayaks, Earth Day etc. are organized. Young engineers share their thoughts in Debates, Essay Writing, Group Discussions, Poster Presentation and Slogan Writing Competitions held during these celebrations.

International Women's Day (March 8). The tremendous Women Power is honored on International Women's Day in tune with the global celebrations. Students are sensitized to "Gender equality" through some short video presentations. Successful women from all fields are invited to inspire the young minds.

International Yoga Day (June 21). Students are motivated to live up to the legacy of our culture. Eminent Yoga instructors are invited to guide the participants to practice the asanas and lead healthy and joyful life. Yoga competitions are conducted for faculty and students.

World Photography Day (August 19). The Photography Club of the college plays an active role in organizing this day annually. The budding engineers share their best photographic shots and celebrate this day by exhibiting the same.

#### National Events:

Independence Day (August 15) and Republic Day (January 26). The campus echoes with music professing the sacrifices made by our freedom fighters to instill and ignite a spirit of patriotism in

the young minds. Tributes are paid to people behind the framing of our Constitution and it's ethos are shared through some inspiring speeches and celebrations. We conduct events commemorating sacrifices of great personalities.

National Science Day (February 28). Vaisheshika - Science Day is celebrated to pay homage of our country's first Nobel laureate in Science, Sir CV Raman, to inculcate the scientific temper in young minds. To this end, an exhibition is conducted, wherein, students participate in large numbers and demonstrate Working/Demo Models, Poster Presentations, etc.

National Mathematics Day (December 22). Commemorating the birth anniversary of mathematical legend Sri Srinivasa Ramanujan to promote analytical and logical reasoning skills, quizzes, Advanced Sudoku, Rubik's Cube competitions are conducted.

Teacher's Day (September 5). The Birth Anniversary of Dr. S. Radhakrishnan, is celebrated as Teacher's Day, with great enthusiasm. Students express their deep sense of gratitude on Teachers' contribution for the cause of education through anecdotes.

Engineer's Day (September 15). The Birth Anniversary of Sir Mokshagundam Vishveswaraya is celebrated as Engineer's Day. Various competitions are held for students offering an opportunity to showcase their Engineering Skills through the Projects they have executed. The philosophy is to motivate young budding Engineers to emulate Sir Vishveswaraya, lauding his service to our city-Hyderabad.

File Description	Documents
Annual report of the celebrations and commemorative events for during the year	<u>View File</u>
Geotagged photographs of some of the events	<u>View File</u>
Any other relevant information	No File Uploaded

#### 7.2 - Best Practices

7.2.1 - Provide the weblink on the Institutional website regarding the Best practices as per the prescribed format of NAAC

Title of the practice

Reduced class strength for improved student learning and employability

Objectives / intended outcomes of this "best practice" and what are the underlying principles or concepts of this practice (in about 100 words)?

Objectives of the Practice

Increased student-teacher interaction

Quicker feedback through better assessment from instructors

Enhanced learning experience for students through improved participation, especially in labs

More opportunities to learn from peers, augmenting collaborative and cooperative learning

More discipline and control over the class leading to increased student engagement

Underlying Principles

Faculty devote more time for thorough assessment of students' assignments, laboratory and project work and providing feedback.

With increased interaction among classmates, students gain quality learning experience.

More comfortable seating posture, more room to manoeuvre and more personal space, could lead to higher levels of student focus, eventually lead to higher levels of student performance.

What were the contextual features or challenging issues that needed to be addressed in designing and implementing this practice (in about 150 words)?

We at Geethanjali College of Engineering and Technology (GCET) wanted to have a class size of 40 students for improving students' capabilities. However, this requires higher

infrastructure as well as faculty numbers to be increased by 50%. Unfortunately, constraints in the fixation of tuition fee make it financially unviable and therefore infeasible to have such smaller class sizes.

Keeping this in view, as a compromise, in CSE and ECE classes, each having 240 students, we have reduced the class strength to 48 students per section instead of the normal 60 students per section.

This has forced us to increase the number of faculty by 25% increasing expenditure on salaries of these two departments by more than 1.5 crore rupees/year. Over and above, operational expenditure of labs, in terms of consumables, equipment maintenance and repair, and electricity charges has increased. Expenditure on civil infrastructure and class room furniture also increased.

Describe the practice and its uniqueness in the context of India higher education. What were the constraints / limitations, if any, faced?

It's an established fact that students learn faster and perform better in smaller classes. A class size of about 30-40 students results in more individual attention, increased participation, and better communication between instructor and students. Students receive feedback quickly from peers and instructors, encounter more opportunities for hands-on learning than in large classes with 60 and more.

A few of us studied and worked abroad, have experienced that coursework in a class with lesser number of students is adapted to fit the needs of students. As already mentioned, we have kept our class size 48 instead of 60. Most of the colleges and universities in our country have 60 in a class.

Our classes have three-seater benches with six rows and four columns capable of accommodating 72 students. However, we have ensured the middle seat is kept vacant in each bench ensuring students have a more comfortable seating posture needed since students spend nearly 6/7 hours a day. This eliminates noise in classroom since opportunities for students to have cross talk is almost negligible as instructor can easily identify if anyone is talking and would have more control of the class, maintaining

discipline and promoting better learning.

Due to reduced strength, instructors get to know students faster, tailor pedagogy catering to learning styles of a good number of students.

Reduced class strength is more conducive, facilitating hands-on assignments, particularly in labs, wherein just two students work at a workbench, instead of usual three, enhancing learning experience considerably.

Smaller classes encourage students, get involved in learning, sharing ideas, thoughts and views with peers and instructors, benefit from a more thorough assessment of their work, receiving feedback.

Students have a better chance to get to know classmates benefiting from their comments on assignments and presentations. Further, each student's contribution is acknowledged, particularly in discussion settings and learns from one another based on the contributions they make during class.

Reduced class size benefits slow learners and disadvantaged students with rural background. Facilitates improvements in student engagement, lower drop-out rates, better non-cognitive skills, promotes persistence and self-esteem among learners.

Greater individualization of instruction, better classroom control and, thus, better learning ambience. Instructors have individual interactions with students, consulting with parents, giving greater attention to students' work. Class size is an important determinant of student outcomes.

#### Constraints/Limitations:

Class size reduction involves recruitment of more teachers, requires additional infrastructure, operational expenditure and is quite expensive.

#### Evidence of Success

Provide evidence of success such as performance against targets and benchmarks, review/results. What do these results indicate? Describe in about 200 words.

Ever since 2016-17 academic year, we have kept our class size as 48, our graduate outcomes have improved.

More students have been participating in various co-curricular activities, namely, in Project/ Problem-based learning, paper/poster presentations, incubation centre activities, Hackathons, programming contests and student club activities.

Students have designed and built several prototypes, developing collaborative and cooperative learning in groups, discussing ideas, exchanging views and thoughts, evolving ways to resolve conflict and reach agreement, becoming aware of feelings of members in a group, listening to ideas of others with open mind and respecting each other's views even if they don't agree with others.

With a smaller class size, students' group sizes are smaller, paving way for increased involvement and participation in group work, led to higher levels of student focus, resulting in higher levels of student performance. Students got more opportunities to interact with instructor obtaining feedback more frequently.

Reduction in class size has facilitated reduced workload on instructors and mentors as they need to assess lesser number of students' work, mentor lesser number of students resulting in instructor spending quality time with them ensuring better and improved learning experience for students resulting in enhanced graduate outcomes and employability.

Problems Encountered and Resources Required

Please identify the problems encountered and resources required to implement the practice (in about 150 words).

We have tried to implement smaller class sizes in CE, EEE, ME and did so for one academic year. Unfortunately, number of admissions in CE, EEE and ME has been a bit low in first year. However, lateral entry students join in second year filling the vacant seats of first year. When dividing sections in second year,

distribution of students in order of merit into third section needed students grouped earlier to be divided further. Parents and students complained as students by then have developed friendship with some and were reluctant to move to other section. Hence, we had to discontinue this in above disciplines.

More civil infrastructure in terms of class rooms, faculty cabins/cubicles and furniture is required, so also, more quality faculty, especially senior instructors for second year and third year classes of increased sections due to reduction of class strength. Obviously, more financial resources are needed. Unfortunately, salary of additional faculty is not considered while fixing tuition fee.

Mentoring - supporting students' professional and personal development

#### Objectives

- To identify mentee's strengths, weaknesses, thereby empowering mentee overcome weaknesses, enhancing strengths, and encouraging professional and personal development.
- To give mentee an overview of engineering profession, gain a deeper understanding of engineering by relating it to daily life, explore possible career paths and opportunities, encourage student build required skills, self-confidence through accomplishments, work towards reaching his/her aspirations and become a strong professional

#### Underlying Principle:

Mentor ensures mentee develops trust in their relationship, listens with empathy, respects uniqueness of mentee, influences through constructive feedback and empowers mentee to make right decisions towards reaching mentee's professional and personal goals.

What were the contextual features or challenging issues that needed to be addressed in designing and implementing this practice (in about 150 words)?

Each mentor adopts 15-20 students, monitors student's learning,

identifies quick and slow learners. Initiates remedial measures for learners falling below desired standards, brings them up, ensuring student's aspirations of securing degree with well-paid job. Quick learners are motivated explaining opportunities that galore, provide guidance, focusing on career planning based on mentee's identified goals.

Periodic reviews are conducted for students experiencing academic difficulties, identifying gaps in their understanding and knowledge, reviewing pre-requisite skills, informally discussing non-academic matters also, building an atmosphere of trust, allowing student to self-assess his/her strengths and weaknesses and providing advice.

Challenges are, faculty with mentoring capabilities are less although they are trained on conduct of mentoring, which is overcome to some extent through a departmental structure to mentor faculty. In spite of this, a good number of students often are reluctant to discuss about their difficulties. Further, due to mushrooming of engineering colleges, students' motivation is low.

Describe the practice and its uniqueness in the context of India higher education. What were the constraints / limitations, if any, faced?

Our mentoring system offers advice on an individual basis on academic and career development issues. Created a mentoring action plan reflecting different professional development needs at various stages of the student's college study.

A two week "Orientation Program" facilitates student in adjusting/adapting to the college environment.

Further, we discuss importance of the following with mentees:

Attending all classes, doing homework/assignments, regular study of three hours/day, participation in class activities such as tutorials, learning in groups, etc. and their implication to do well in examinations and also in career.

Laboratory exercises, mini and major projects, how they reinforce theoretical concepts, necessity of acquiring programming and logical thinking skills, required for securing a good job, citing the trend of enormous increase in costs of education and health care the student may have to provide, for his/her family's future needs.

Fast-changing technological developments, job profiles/roles, skills needed, diminishing opportunities for unskilled personnel, and availability of abundant opportunities only for skilled and talented professionals.

Problem solving, inquisitiveness, self-learning ability, Self-supervision, Punctuality, prioritizing work, Written and Oral Communication, Pro-activeness, team-work and Leadership Skills.

Participation in Project exhibitions, Programming/coding contests, Internships, Literary competitions, Technical Seminar/Poster Presentations, and Entrepreneurship activities, which help build student's professional career

Importance of "Life Long Learning", advising them to cultivate the habit of wide reading, covering diverse areas from English literature to anthropology, etc. to succeed as a professional.

Offer career guidance programs, provide assistance and resources on individual basis, help formulate career plans, providing exposure to infinite possibilities likely to arise in future, enable students acquire skills, abilities and confidence to transit successfully to further studies/work/self-employment.

#### Constraints:

Some faculty do not possess adequate mentoring capabilities; many of them have graduated from colleges with low reputation and their peer group's quality is found wanting, resulting in their low articulation skills, thus their inability to attract students towards mentoring.

Our up-bringing of children is such they don't openly discuss issues concerning to them either with parents or with mentors. In addition, a good number of students hailing from rural background, feel shy and have apprehensions discussing issues.

Evidence of Success

Provide evidence of success such as performance against targets and benchmarks, review/results. What do these results indicate? Describe in about 200 words.

Mentoring resulted in improved attendance, class participation, and performance in examinations. Mentees' mathematical ability, problem solving, self-learning, articulation abilities and punctuality in fulfilling tasks with pro-activeness also improved.

Mentoring system implemented in the college has been resulting in improved graduation rates within the stipulated duration of four years, lower drop outs, improved student participation in various activities, namely, project exhibitions, Hackathons, programming/coding contests, creative writing competitions, technical seminar/poster presentation competitions, winning prizes in events organized at many national/international fora. The number of students undergoing internships and project works in industries has improved significantly. Group/collaborative learning activities have improved leading to the development of some working prototype models with a couple of them getting filed as patents, and are proposed for conversion into products. The number of placements offers and number of students opting for higher education in India and abroad has a significant rise over the last few years. More students are involving in professional society activities and are also undergoing Business English certificate course resulting in improvements in scores of IELTS and GRE. A good improvement has been observed in the students getting themselves acquainted with the latest technological developments indicating a substantial change in their attitudes.

File Description	Documents
Best practices in the Institutional website	https://www.geethanjaliinstitutions.com/engineering/img/downloads/igac-bp2020-21.pdf
Any other relevant information	Nil

#### 7.3 - Institutional Distinctiveness

7.3.1 - Highlight the performance of the institution in an area distinct to its priority and thrust (within a maximum of 200 words)

The first PEO of all our undergraduate programs is gainful employment or pursuit of higher education. Gainful employment is

essentially facilitating students in securing a well-paid job while studying in college, which we are coining it as Campus Placements. This is an area of utmost priority for any college and is the case for us too.

Employers look for Problem solving, critical thinking, logical reasoning, programming skills and other 21st century skills in fresh engineering graduates. To enhance these skills, we roped in a third-party vendor to train the students for IT and IT enabled service ITES companies namely, Wipro, TCS, Cognizant, Accenture, etc. To cater to the skills required for product-based companies namely, Amazon, Microsoft, DE Shaw etc. another third party with proven track record, was roped in to impart the required skills.

Around 150 students were trained to enhance their advanced data structures, algorithms and problem-solving skills since the academic year 2020-21. The impact of this advanced training program is clearly visible in the increased number of placements for (2017-21) batch. in product-based companies.

It is observed that providing customized training, as per the industry needs and skills has helped students to get placed in higher numbers.

File Description	Documents
Appropriate link in the institutional website	https://docs.google.com/document/d/1gmObjY wIdsPEfkw8uY7tvAnuliZGxE2K/edit?usp=sharin g&ouid=105062712823366765579&rtpof=true&sd =true
Any other relevant information	No File Uploaded

#### 7.3.2 - Plan of action for the next academic year

Future Plans of Actions for Next Academic Year 2021-22

The institute plans to

- 1. Increase the number of activities that involve student development ensuring quality in every activity.
- 2. Participate in NIRF ranking wherein we intend to improve our NIRF ranking from (251-300) band to a rank under 200 rank improving quality of Teaching Learning Process, placement training programs, thus enhancing median salary pay package of the students, research publications and

patents.

- 3. Provide training on emerging areas such as Artificial Intelligence, Machine Learning, IoT, Cyber Security, Blockchain Technologies, etc across all sections of students for improving their employability. Towards this end, institute has already established a few laboratories in some of these areas and shall be strengthening existing labs and establish some more new labs.
- 4. Identify and recruit some more senior faculty in emerging areas on a continuous basis, keeping in view of the future demand.
- 5. Enhance a greater number of ICT enabled class rooms/labs for improved teaching learning process.
- 6. Encourage faculty to publish their research articles in more reputed journals such as Springer, Elsevier etc. and increase number of patents.
- 7. Strengthen Incubation centre activities by extending support and guidance to the students/faculty involved in by way of procuring H/W, S/W and conducting various programs, inviting experts across various disciplines.
- 8. Adopt a systematic method to treat the waste water by establishing a mini treatment plant to safeguard the environment.
- 9. Encourage the students to participate in good numbers in more Hackathons conducted by AICTE, JNTUH (our affiliating university) and other reputed organizations time to time by providing financial and necessary support and guidance.
- 10. Establish at least one start-up by involving alumni, students and college by providing financial support and technical guidance.
- 11. Provide training to students in advanced skill development programs so that at least 60 students secure higher salary packages in the range of 10 to 12 Lakhs rupees.
- 12. Invite more IT industry professionals at senior cadre into Governing Body and Academic Council so that they help in establishing contacts with more companies for students internships which may fructify towards increased number of Campus placements in the near future.
- 13. Establish Centres of Excellence, particularly in emerging areas, with industry collaboration that would immensely benefit faculty and students.
- 14. Have more active and deeper involvement of Alumni in student development activities and programs more often.
- 15. Involve more number students to participate in community services thereby facilitating students develop empathy, responsibility to social issues which would help them to

come up with innovative ideas towards solving societal problems.