



SELF STUDY REPORT

FOR

2nd CYCLE OF ACCREDITATION

GEETHANJALI COLLEGE OF ENGINEERING AND TECHNOLOGY

CHEERYAL(V), KEESARA(M), MEDCHAL (DIST.)

501301

www.gcet.edu.in

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Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

June 2022

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Geethanjali College of Engineering and Technology (GCET), a self-financing institution, established in 2005, located in Cheeryal, Medchal District, Telangana State, is affiliated to the Jawaharlal Nehru Technological University, Hyderabad. Institution offers UG programs in CE, ME, ECE, CSE, CSE (AI&ML), CSE (DS), CSE (IoT), CSE (CS) EEE & IT disciplines, PG programs in CSE specialization and MBA with a total intake of 1158.

Unique features and milestones of the college are:

- NIRF Rank in the band of 251-300 in 2021.
- All eligible UG programs accredited by NBA under TIER-2.
- NAAC accreditation with “A” Grade (CGPA: 3.36) in June 2017
- Autonomous status under UGC 2(f) and 12 (b) since 2016
- PARAMARSH status by NAAC in 2018
- Four-star Innovation Council Award and ARIIA ranking in Excellent band by MHRD 2020-21
- ISO 9001-2015 certified 2021-22
- SIRO recognition by DSIR since 2011
- Ten research projects with external funding of about 1.15 Crores have been executed.
- Providing consultancy services to Research and Technologies, Bangalore since 2021.
- Faculty have published more than 460 papers in journals and conferences, since 2016.
- Established Virtusa Center of Excellence for AIMS in 2021.
- Collaboration with Wipro for training students, since 2020

Incubation and Start-Ups:

In-house incubation centre with an objective of technology transfer. Four startups incubated with financial support to get registered/incorporated with Ministry of Corporate Affairs, GoI. College is registered with MSME, GoI, and is recognized as a Technology Business Incubator.

Extension and Outreach activities:

Geethanjali has been helping its neighborhood community through its NSS cell. College distributes books, uniform and other basic amenities for underprivileged government school children, supports Mid-day meal scheme, organizes Blood Donation, Health Camps, visits old-age homes and orphanages, supports them through service and donates necessary items.

Placement Details:

Geethanjali gives utmost priority for student placements and has been training students accordingly. Median salary over the last four years has been steadily increasing from 3 Lakhs/year (2019) to 4 Lakhs/year (2022), with significant improvement in number of students placed with 5 Lakhs and above/year. Placement rate has increased from 45 to 70 per cent during the last five years.

Vision

A group of scholarly and highly qualified people came together and established “**Teja Educational Society**” in **2002**. The management with its technical and professional background foresaw the need for quality higher education, particularly, in technical education, to meet the ever-growing demand for skilled technical professionals, who would be the harbinger to ensure sustainable development of the Nation. Through protracted discussions with committed academicians, industry personnel and members of community, a need was felt to establish a professional technical institution to provide a platform for laying the foundations of knowledge/skills/creativity/innovation/attitude and a strong passion towards societal development, and “**Geethanjali College of Engineering and Technology**” was established in 2005, with a strong motivation and deep-rooted commitment for providing quality professional/technical education with core values and guiding principles. With this in mind, our management considered various aspects that would facilitate the establishment and nurturing of a technical institution, providing quality education with innate values.

With a motto to nurture young minds, who eventually contribute to the growth of the nation as well as global community, management declared its institutional vision statement: “**Geethanjali visualizes dissemination of knowledge and skills to students, who would eventually contribute to the wellbeing of the people of the nation and global community.**”

In tune with its vision, our management invited highly experienced and qualified faculty who have significantly contributed elsewhere, to lead the institution, towards realizing its cherished vision. Our faculty’s conviction is that there can be no significant innovation in education that does not have professionalism and right attitudes among themselves. Towards this end, and in alignment to our vision, our faculty consider young learners as the epicenter for knowledge dissemination, and have been striving to nurture them with care, concern and compassion. In an ambience of laudable learning environment, provided by Geethanjali, the Quality of College Life of our learners is more than assured and augmented to their satisfaction.

Future Goals:

- Visualizing, Aligning and realizing institution’s future Goals to the transformative NEP-2020 policy principles.
- Motivating and training our faculty to cater to Industry 4.0, to provide our learners with need-based skills and digital technologies of Education 4.0.

Mission

The management having formed its well-thought over vision, continued its deliberations with committed academicians, industry professionals and members of community on the process they needed to adopt in order to achieve the stated vision. All the above stakeholders believe that mission statements serve the organization with core values and guiding principles, differentiating the organization from others, and inspire all concerned, rallying them with focus and commitment towards the stated purpose.

For learners to acquire technical skills and knowledge, it is mandatory to have strong fundamentals in basic and engineering sciences.

It is also necessary to inculcate interpersonal skills in learners as a practicing engineer interacts with various stakeholders, and therefore, should understand the nuances of not only communication, but also various skills including team-work, professionalism, self-awareness and such others.

Learners must be motivated for developing strong initiatives and drive, enthusiasm, curiosity, commitment, creativity, innovation and inclination to explore, for lifelong learning as technology is advancing continuously.

Further, human values, professional ethics, a passion for selfless service towards community (self-actualization, the purpose of human existence in this world – highest level of the pyramid- Maslow's theory of hierarchy of needs) are to be inculcated in order to ensure holistic development with liberal thoughts in learners.

Considering all the above aspects, Mission statements have been arrived at, in order to provide proper direction with a sense of purpose so that learners understand the organizational priorities and commit themselves to making the best use of available resources.

Mission Statements:

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

The above mission statements have thus far been enabling the institution in translating its vision into reality, and allowing the institution to assess and regulate the cost, time and performance parameters.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

1. Experienced Faculty with strong work ethics, commitment to quality, positive outlook and perseverance in the face of any adversity
2. A progressive and forward-looking Management with a motto to provide quality educational services and delivery to the students and reach out to the society.
3. A State-of-the-Art infrastructure with a high-speed Wi-Fi enabled campus, e-learning facilities in the classrooms and good transport facilities to the staff and students.
4. Laudable HR Policies with motivational initiatives for faculty, staff and students
5. High quality student-centric Teaching-Learning process, recognized with Four Star by IIC-MHRD and Excellent Band by ARIIA, for creativity and innovation.
6. Vibrant Student clubs and institutional technical Associations with Professional Societies, for student motivation and professional networking, towards gainful employment.
7. A growing research culture among faculty for pursuing research degrees and publications.
8. Notable institutional linkages with Industries, R&D establishments and Universities, including a foreign university, for knowledge exchange and mutual academic benefits.
9. Encouraging upward trend in Campus Placements accruing benefit to students.
10. Notable recognition of the college with external ratings, grant of autonomy and appreciable public image

Institutional Weakness

1. Lack of On-Campus Residential Accommodation for students and staff
2. Less Number of PhDs among the faculty
3. Meagre Consultancy offered by Faculty
4. Inadequate motivation among younger faculty towards pursuing research due to low awareness on its importance as well as patenting, which is limiting their career progression and capacity building.

Institutional Opportunity

1. Grant of Autonomy to be utilized for furthering the educational endeavors of the institution, by redesigning the curricula, integrating professional education with enough vocational courses and offering more programs in emerging areas of Engineering and Technology leading to multidisciplinary education and research in alignment with NEP-2020.
2. Utilizing SIRO recognition, connecting with industry and other reputed establishments collaboratively, apply for DST and other sponsored research funds, motivating faculty to involve in cutting-edge and applied research.
3. Using the rating status of FOUR star by IIC-MHRD and EXCELLENT BAND by ARIIA-MHRD, recognition as technology business incubator by MSME, with the recently expanded incubation center GEENOVATE at Geethanjali, involving students in project-based learning more aggressively, develop prototypes for societal development and scaling the same for technology transfer.
4. Establishing a Faculty Development Centre.

Institutional Challenge

1. Mushrooming growth of Institutions offering engineering education, Globalization and entry of Private and Foreign Universities, causing increased competition
2. Government restrictions on fee structure of self-financed institutions is pressurizing them to look for alternate means of revenue generation.
3. Need to increase awareness on imbibing Emerging Technologies amongst the faculty, to match modern trends.
4. Due to tremendous automation happening in manufacturing and other core engineering industries, lesser number of openings are available for graduates of core engineering disciplines (CE, EEE and ME), which unfortunately has been severely denting admissions in these disciplines, leading to low motivation among faculty of these disciplines.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

Geethanjali, an HEI, after having been conferred Autonomous status in 2016, framed its own Academic Regulations (AR16), designed curricula focusing on Outcome Based Education, under the CBCS scheme, providing academic flexibility for 05 UG (B.Tech.) and 05 PG (04 M.Tech. and 01 MBA) programs, by following the guidelines of statutory bodies, AICTE and UGC. Subsequently, curricula were revised in 2018,

and in 2020, which comprise the following:

- **Core:** Basic/Engineering Sciences, Humanities, Social Sciences and Engineering.
- **Electives:** Professional Electives which enrich students with technological advancements, and Open Electives which promote the philosophy of liberal education.
- **Other courses:** Logical reasoning, environmental studies, human values professional ethics, Project management and finance, Design Thinking, Internship, projects/seminars, and Entrepreneurship.

Curricula provide courses on employability, entrepreneurship/skill development, creativity, innovation, teamwork, communication, problem solving ability, Logical reasoning, environmental aspects for sustainability, professional ethics and integrity to provide students with holistic education, value education building a culture of innovative spirit, transforming student to serve the society for sustainable development, thereby catering to the local, regional, national and global needs. All the above courses provide students with **liberal and holistic education along with experimental and experiential learning** through simulation and hands-on operations, to be globally-competitive.

Over and above, departments offer **Value added courses** involving modern tool usage as adopted by industry, to enhance employability in their respective core sectors.

While designing the curricula, under the autonomous status as well as during subsequent revisions, BoS of each department took inputs from all stakeholders, namely, industry, R&D establishments, members of the professional bodies, alumni, students and faculty of the college.

From the academic year 2020, Institution has been administering 10 UG programs with 04 in emerging areas of Computer Science and 02 PG programs (01 M.Tech. CSE and 01 MBA).

Towards this end, all UG curricula include, multidisciplinary courses in emerging areas, through a large number of core courses and electives (Professional and Open) to choose from various departments, facilitating our learners with need-based skills and digital technologies of Education 4.0, catering to industry 4.0. Curriculum design and development at Geethanjali is more than aligned to its vision.

Teaching-learning and Evaluation

Geethanjali follows a well-defined process through which admissions are carried out transparently as per the stipulations of Telangana State Council for Higher Education, following norms of reservation policy, and ensuring representation of student community from different geographical areas, socio-economic, cultural and educational backgrounds.

Aligning with its vision, Institution is committed to impart high-quality education by inculcating strong foundations of science and engineering knowledge to produce technically competent and socially responsible engineers, contributing to Nation Development. Teaching-Learning and evaluation processes established and practiced by the institution are playing a pivotal role in striving towards realizing its cherished vision.

Institution's Teaching-learning process, involves planning and implementation of instructional activities that are student-centric, provide quality learning experiences, thereby meeting the intended learning outcomes in accordance to the teaching plan.

Teachers of Geethanjali have been taking pedagogical initiatives, involving student-centric learning methods, namely, experimental/experiential learning, collaborative/participative learning thereby facilitating enhanced learning. ICT facilities are employed, to present the content demystifying complex concepts using Multisensory techniques enabling further improved learning. Teachers are deputed for Faculty Development Programs to enhance their subject knowledge, while some teachers attend classes taught by other bright teachers, learning pedagogical practices. Further, teachers develop creativity and innovation in students through project/problem-based learning.

As part of our Teaching-Learning, teachers understand the diversity of students, their learning abilities and other personal attributes, identify advanced and slow learners using well defined procedures. Advanced learners are encouraged to participate in various technical competitions and are provided with advanced programming skills training, facilitating them towards placements with higher pay packages. For slow learners, remedial classes are conducted enabling them to cope up with their studies, and monitored regularly through meticulous mentoring. On some occasions, peer learning is facilitated. Institution facilitates students' holistic development.

Teaching-Learning-Process effectiveness is measured by Course Outcomes (COs) and Program Outcomes (POs) attainments. Institution practices continuous and transparent evaluation system using Continuous Internal Evaluation and Semester End Examinations.

Institution has designed a structured feedback system evaluating its teaching effectiveness, measurement of COs and POs, which is serving to re-orient teachers' pedagogical practices, helping as a corrective mechanism, achieving the desired outcomes.

Research, Innovations and Extension

Geethanjali, an HEI firmly believes that research is an integral component of academics, and has therefore, prepared its research and consultancy policies towards promotion of research, innovation, consultancy and extension, thereby nurturing a culture of research and innovative spirit, towards serving the community. It has also constituted a research committee and associated ethics committee to monitor and evaluate on-going research as well as research proposals submitted for funding.

Institution encourages faculty to pursue research, providing seed money, incentives for research publications, Patenting and attending conferences. Further, faculty pursuing PhD are given a day off in a week depending on the progress of their research.

In addition, to develop each department into a research hub, the institution has

- Structured each department into four/five groups, as per specializations and faculty attached accordingly with a senior professor as lead, guiding them in their academic and research pursuits and ultimately make these well-knit groups into research centres.

These practices, have helped faculty registered for PhD, (71 part-time, 08 full-time), to actively pursue the same and 08 faculty have obtained PhD while working in college.

During the assessment period, faculty have published 456 research papers (including Scopus: 216, Web of Science: 55, others in UGC care), Books/chapters/Conference papers: 106, Patents: 55, and executed 06 sponsored research projects with one almost completion stage, which is an indication of an evolving research

culture of the institution.

Institution has developed an Ecosystem for innovation, creation and transfer of knowledge through its incubation Centre, R&D cell and Entrepreneurship Development Cell in association with the National Entrepreneurial Network (NEN).

During the assessment period, Incubation centre of the institution, has organized 46 events for development of innovative and entrepreneurial culture among students, which has resulted in 25 projects, exhibited in 20 State/National level competitions and won 7 prizes.

Four start-ups incubated at Geethanjali are registered and incorporated with the Ministry of Corporate Affairs, GoI, in line with National Innovation and Start-up policy.

Faculty have been providing Consultancy services since 2017.

On the whole, Geethanjali has a vibrant research culture and an honest goal to improve its research endeavours over the years.

Infrastructure and Learning Resources

Geethanjali, located on the outskirts of Hyderabad, has a lush green campus of about 13.5 acres, providing a good academic ambience with a built-up area of about 35,920 Sqm. Out of this, area added for instructional and research facilities during the assessment period is about 3,500 Sqm. In addition, examination section has been augmented and a new auditorium and other facilities are provided anew.

During the assessment period, the following facilities have been added:

- 12 class rooms, 19 laboratories, one workshop, a computer centre and a research lab
- LCD projectors have been installed in the research lab and 27 class rooms, thereby providing ICT facilities in a total of 48 class rooms, to enrich the teaching-learning process.
- In addition, the college has augmented student support facilities to conduct co-curricular, extra-curricular and administrative activities.

Adequate provision in the budget (of about 35%) has been made for annual maintenance and replenishment of physical facilities including laboratory equipment, ensuring their availability on a continuous basis.

College library is fully automated with an LMS. Digital library with 48 systems facilitates accession of e-resources, on site and remotely. The library has adequate number of titles/volumes, journals (hard and soft copies) for teaching-learning and research. Departments also maintain libraries. During the assessment period, around Rs. 18 lakhs per annum has been spent towards augmenting library resources.

The college has an IT policy, ensures adequate user-friendly deployment of technology and its maintenance, with almost insignificant downtime. 1000 Mbps bandwidth is provided. Campus is Wi-Fi enabled, with CC TV cameras, anti-virus softwares and firewalls. The college also maintains laudable Safety Standards and provides safety equipment such as Fire Extinguishers and first aid boxes in labs. The campus is equipped with student support facilities, such as, Canteen, Restrooms, Potable water, play grounds and Health centre.

The Campus has adequate Power Backup and UPS facilities. Solar Power with facility to upload to grid has also been installed. The management has been spending sizeable amount annually, to develop and maintain the infrastructure every year, in line with the growth of the HEI, and ensures its optimal utilization.

Student Support and Progression

Geethanjali has an excellent academic support system through a structured mentoring process facilitating students towards their career and professional development.

Towards this end, Geethanjali has established:

- Centre for academic and career guidance
- Soft-skills development centre
- Training and placement cell

Academic guidance is provided through mentors, with each mentor allocated about 20 students, who are handheld for three years, identify mentees strengths, weaknesses, and are advised accordingly.

Career guidance centre provides students with a plethora of career opportunities available, facilitating them towards preparation of GRE/GATE/CAT etc. for higher education, connecting with resource persons and assisting them in securing admissions.

Soft-skills centre facilitates, communication and interpersonal skills through various activities demystifying the fear of public speaking, especially for students hailing from vernacular medium and rural background.

Centre for training and placements facilitates internships in various industries, prepares database of various companies, identifies skill-set requirement and arranges training accordingly.

All these have resulted in about 80% of eligible students placed with the highest pay package of Rs.13.2 Lakhs/annum.

Students benefitted through scholarships:

- 50% by the Government of Telangana
- 14% by the Management

Student Grievance Redressal Cell resolves students' Grievances, as per the redressal mechanism norms of the institution. Students are cautioned about the punishment of ragging offence, through seminars and display of sign boards, thereby ensuring ragging free campus.

Women Protection Cell of the institution provides awareness on issues related to gender bias/teasing/hostility/verbal abuse/sexual harassment, if any, and resolves the same and Geethanjali so far has had no case of any sexual harassment.

College has an SC/ST cell to cater to the complaints, if any, from the disadvantaged groups, and there have been no such cases so far.

Vibrant student clubs and professional bodies organize various co-curricular/extra-curricular activities, for holistic development of students, which include sports, cultural and outreach activities, through the Students' Council, which, along with faculty advisors addresses issues related to services and facilities on the campus.

Geethanjali has a registered Alumni association, which plays an active role and facilitates guest lectures/motivational talks/curriculum design etc.

Governance, Leadership and Management

Geethanjali's organizational structure, in tune with its vision and mission, with core values and guiding principles at its epicentre, has a participatory decision-making process, which is at its core, ensures good governance, which is reflective of its effective leadership, towards realization of its cherished vision and mission.

Institutional vision envisages that its graduates contribute to the wellbeing of the nation and global community, with the mission to produce graduates possessing sound knowledge, technical/interpersonal skills, promoting creativity/innovation/research, entrepreneurship, humanistic/spiritual values, with a passion to serve community. This calls for Strategy Development, Deployment and Execution.

To this end, appropriate structures and processes are established, ensuring accountability, transparency, responsiveness, equity, empowerment, and participation. Institution is organized into Academic, Examinations and Administrative units with Principal as the leader. Roles and responsibilities of various bodies, statutory, non-statutory and administrative heads are well defined, and shouldered to satisfaction.

The **Institutional Perspective Strategic Plan** (2021-26), in line with NEP-2020, catering to the expectations of stakeholders, stating short, medium and long-term goals with timelines towards achieving them is in place.

Institution has a well-defined recruitment and promotion policy for faculty and other staff.

A comprehensive performance appraisal and mentoring system is established, facilitating faculty towards their professional development. Institution conducts training need analysis, accordingly, organizes various Faculty Development Programs (FDPs). A feedback system is in place ensuring quality of FDPs. Faculty are also deputed to FDPs organized by premier institutes. Staff development programs are also organized.

A month before the closing of each financial year, departments/cells/divisions are requested to submit their requirements along with the budget. Institution forecasts its expected income for subsequent year, allocates it accordingly in a transparent manner. Institution conducts internal and external audit (by qualified chartered accountants) of its income and expenditure annually.

Geethanjali being an autonomous HEI, has self-regulated responsibilities and has established an Internal Quality Assurance Cell, to continuously monitor the quality of all its academic and administrative activities to achieve excellence. Institution conducts internal and external academic and administrative audit (AAA), inviting experts from reputed institutions, through a well-structured questionnaire and attends to appropriate actions as suggested by the AAA committee.

Institutional Values and Best Practices

Geethanjali, an HEI, built on a deep-rooted commitment towards sustainable development of the society, ensures that its graduates are socially-responsible, morally-upright, open-minded and sensitive to gender/cultural/religious/linguistic diversities in our society, that are so important for our Nation-building.

Our Institution has genuine concerns about preserving the environment. Towards this, Geethanjali has always maintained a green cover in the campus, installed solar power wheeling to the grid, conducts green and energy audits annually, towards optimal utilization of resources. Various environmental awareness camps have been organized annually through the Students' Council.

Institution strictly prohibits usage of plastic and entry of vehicles into the campus, and has well laid out policies for solid and e-waste management practices.

Barrier-free access to every locale in the campus. Provision of wheel chair, user-friendly rest rooms to *Divyangjan*, facilitate free movement and supportive care.

Institution administers mandatory audit courses on human values and professional ethics.

Institution's NSS unit and student clubs, organize outreach activities involving students, and aids in developing emotional-quotient and empathy-oriented compassion leading to self-actualization.

Institution follows many practices to achieve its cherished vision. Best two among them are:

1. Reduced class strength for improved student learning and employability

Class size is an important determinant of student outcomes. Hence, in CSE and ECE, each with 240 intake, earlier class size of 60 students, has been reduced to 45-48 students/section since 2016-17 academic year.

2. Decentralized departmental administration for improved scholarly academic/research activities of faculty

Each department is structured into four/five groups, as per specializations and faculty attached accordingly with a senior professor as lead teacher.

This structure has been facilitating:

- Improved Quality of teaching
- Better Curricular design and development
- Promoting an augmented research culture
- Talent identification and development of leadership qualities amongst the teachers.

Institutional distinctiveness

Campus placements is the area of priority and thrust for **Geethanjali**. It has performed fairly well in that aspect over the years by continuously striving in honing programming skills, logical thinking and soft-skills of students, resulting in about 80% of eligible students getting placed with the highest pay package of Rs.13.2 Lakhs/annum.

NAAC

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	GEETHANJALI COLLEGE OF ENGINEERING AND TECHNOLOGY
Address	Cheeryal(V), Keesara(M), Medchal (Dist.)
City	HYDERABAD
State	Telangana
Pin	501301
Website	www.gcet.edu.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	S Udaya Kumar	040-9182058187	9866308257	040-9182058187	info@gcet.edu.in
IQAC / CIQA coordinator	Bonda Leelaram Prakash	040-9346314538	9346314538	040-	blprakash.ece@gcet.edu.in

Status of the Institution	
Institution Status	Self Financing

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

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details	
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Date of Establishment, Prior to the Grant of 'Autonomy'	01-01-2005
Date of grant of 'Autonomy' to the College by UGC	19-04-2016

University to which the college is affiliated

State	University name	Document
Telangana	Jawaharlal Nehru Technological University	View Document

Details of UGC recognition

Under Section	Date	View Document
2f of UGC	13-01-2015	View Document
12B of UGC	13-01-2015	View Document

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

Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	View Document	02-07-2021	12	

Recognitions

Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No
Is the College recognized for its performance by any other governmental agency?	Yes
If yes, name of the agency	NATIONAL INSTITUTIONAL RANKING FRAME WORK
Date of recognition	09-09-2021

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Cheeryal(V), Keesara(M), Medchal (Dist.)	Rural	12	40772.95

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BTech,Computer Science And Engineering	48	INTERMEDIATE	English	60	60
UG	BTech,Computer Science And Engineering	48	INTERMEDIATE	English	60	60
UG	BTech,Computer Science And Engineering	48	INTERMEDIATE	English	240	240
UG	BTech,Computer Science And Engineering	48	INTERMEDIATE	English	60	60
UG	BTech,Computer Science And Engineering	48	INTERMEDIATE	English	60	60
UG	BTech,Electronics And Communication Engineering	48	INTERMEDIATE	English	240	239
UG	BTech,Electrical And Electronics	48	INTERMEDIATE	English	60	38

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	Engineering					
UG	BTech,Information Technology	48	INTERMEDIATE	English	60	60
UG	BTech,Civil Engineering	48	INTERMEDIATE	English	60	55
UG	BTech,Mechanical Engineering	48	INTERMEDIATE	English	60	44
PG	Mtech,Computer Science And Engineering	24	B.TECH	English	18	3
PG	MBA,Department Of Management Studies	24	DEGREE	English	60	57

Position Details of Faculty & Staff in the College

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	0				0				0			
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit	0				0				0			
Sanctioned by the Management/Society or Other Authorized Bodies	38				57				151			
Recruited	29	9	0	38	33	24	0	57	79	72	0	151
Yet to Recruit	0				0				0			

Non-Teaching Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				147
Recruited	68	79	0	147
Yet to Recruit				0

Technical Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				39
Recruited	34	5	0	39
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD	0	0	0	0	0	0	0	0	0	0
Ph.D.	22	8	0	14	14	0	2	0	0	60
M.Phil.	0	0	0	0	0	0	1	1	0	2
PG	7	1	0	19	10	0	76	71	0	184

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

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

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

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

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	591	4	0	0	595
	Female	316	5	0	0	321
	Others	0	0	0	0	0
PG	Male	19	0	0	0	19
	Female	41	0	0	0	41
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years					
Programme		Year 1	Year 2	Year 3	Year 4
SC	Male	80	82	75	100
	Female	49	42	55	45
	Others	0	0	0	0
ST	Male	44	30	53	34
	Female	11	13	9	13
	Others	0	0	0	0
OBC	Male	326	276	292	296
	Female	162	151	167	149
	Others	0	0	0	0
General	Male	197	191	220	249
	Female	130	168	156	147
	Others	0	0	0	0
Others	Male	19	28	27	19
	Female	6	6	3	3
	Others	0	0	0	0
Total		1024	987	1057	1055

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Civil Engineering	View Document
Computer Science And Engineering	View Document
Department Of Management Studies	View Document
Electrical And Electronics Engineering	View Document
Electronics And Communication Engineering	View Document
Information Technology	View Document
Mechanical Engineering	View Document

Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	<p>Institution has plans to offer core/fundamental courses required to lay the foundation in order to pursue any branch of Engineering. These courses shall include the content in depth, that facilitate real time applications of almost every discipline of engineering. Learners shall be facilitated to choose courses across various disciplines. However, certain core and fundamental courses pertaining to the discipline are mandatory without which the learner cannot be awarded a UG degree in the concerned discipline. Another salient feature is, most of the fundamental courses being offered would be hands on courses. In-addition, we have already identified vocational courses each with a duration of 32 hours, which are to be integrated along with the core/fundamental courses providing the learners a real time experience with which, if the learner wants to exit prematurely, should be able to acquire the necessary skills enabling the learner to seek an employment and make a decent living. When learners are involved in curricula that has a good blend of Humanities, Social sciences, and Management science courses, they acquire certain life skills, namely, critical thinking, interpersonal skills, empathy, emotional quotient, intellectual, spiritual, and philosophical approach to life, which are the essential ingredients that facilitate one to look at the broader perspective of the purpose of existence of human life, which is for societal contribution. Hence, we plan to introduce credit-based courses on Human values, Professional ethics, Environmental science, social sciences, Gender sensitization, Indian Ethos & Philosophy etc.</p>
2. Academic bank of credits (ABC):	<p>Academic committee of the institution has deliberated on options for multiple entry/exit points along with the vocational courses to be offered. A discussion took place on the vocational courses and other associated courses, which facilitate the learner to make a decent living if she/he chooses to take an exit prematurely. Institution has identified a senior professor to coordinate the above including preparation towards registering with ABC after taking approval from its Governing Body and Academic Council. Curricula being designed, in</p>

	<p>particular, vocational courses to be integrated into the curricula, facilitate the learner to deposit the acquired credits soon after the completion of their first/second/third year and take a temporary exit for sometime and re-join or exit with an appropriate certificate/diploma/degree. Faculty will be trained on various pedagogical approaches and encouraged to design their own courses within the designed course outline, meeting the program outcomes. A model exit plan is as follows: Exit after First year: • Engineering workshop - I o Welding (gas and plasma), Smithy, Filing o Auto-CAD - I • Engineering workshop – II o Carpentry, Plumbing and House wiring o Auto-CAD – II • IT Workshop – I o Computer Assembly, Fault Finding, Installing software • IT workshop – II o MS Office (word, excel and power point) • Electrical/Electronic Workshop - I o Electrical wiring, Soldering • Electrical/Electronic Workshop - I o PCB Fabrication o Transformer / Motor winding</p> <p>Exit after second year: • CE o Surveying and Geomatics (Sem 1) o Auto-CAD for building drawing (Sem 2) • CSE/IT/CSE (EA) o Networking Installation and Maintenance (Sem 1) o Python Programming (Sem 2) • EEE o Generator maintenance (Sem 1) o Geyser Maintenance, Motor repairing etc (Sem 2) • ECE o Basic Electronics Instruments servicing (Sem 1) o TV servicing (Sem 2) • ME o Lathe machine (Sem 1) o Auto-CAD for Machine components (Sem 2) o Refrigeration and AC servicing (Sem 2)</p>
3. Skill development:	<p>The institution has been offering training courses on Stitching, paper bags making, MS office etc. to rural unemployed (youth and women folk) thereby facilitating them to make a living, which is in alignment with NEP-20. Geethanjali, as part of its UG curricula, has been administering Engineering Workshop, comprising, “carpentry, smithy, filing, welding, house wiring etc.” for a total duration of 32 hours. However, the institute is of the opinion that each of the above, should be for a duration of 32 hours to gain some semblance of proficiency. Hence, the institute has identified vocational courses mentioned under point 2 of this document, integrating the above into curricula of mainstream engineering education programs, by explicitly mentioning the exit/re-entry plan(s), if a learner chooses to, which are almost in alignment with</p>

	<p>NHEQF. The institution has also designed and administering three additional English language courses, each carrying one credit (each of 32 hours duration) along with two logical reasoning courses, each carrying two credits (each of 64 hours duration), all integrated into the curricula. These courses have been facilitating students acquire adequate soft skills, communication skills and above all, critical thinking and logical reasoning skills, which are essential for gainful employment, higher education as well as career progression. Institution has a tie up with VIHE, Brahmakumaris, Art of living foundation, etc., and has been organizing several events with the help of these organizations towards holistic development of the student. Apart from these, institution also administers orientation/induction program for first year students for a duration of 90-100 hours. Nearly, 50 faculty have undergone training on student induction program organized by AICTE/UGC/JNTUH. Over and above, four to five mandatory non-credit courses are offered on Human values, Professional ethics, Environmental studies, Gender sensitization and Indian Ethos. Further, several students participate in outreach activities, including NSS. All these promote the learner with a positive outlook through development of humanistic, ethical, constitutional and universal human values of truth, righteousness (dharma) etc. Institution has proposed a program structure for each discipline of its UG programs, if adopted by AICTE/UGC and approved by statutory bodies, wherein, students undergo at least two vocational courses in each academic year of their first two years. Institution is confident that the proposed vocational courses would help students find employment or enable them to start a small business unit of their own. College being located in not too far away from industrial area, proposes to engage the services of the personnel/industry available, utilizing the contacts of industry personnel invited on to its Governing Body, Academic Council and Boards of Studies, rope in more industry personnel to train faculty and technical staff on vocational skills for a sustainable vocational training courses benefitting students, in particular, students who may take an exit path prematurely.</p>
<p>4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using</p>	<p>The institution has been attracting faculty and a good number of students belonging to other states which</p>

online course):	<p>has been helping us to adopt to various cultures of other states, thereby not only developing linguistic and cultural tolerance but also facilitating integration of all cultures resulting in a pluralistic society. Institution plans to develop and administer certificate courses in Vedic Mathematics, astronomy, philosophy, yoga, etc. by tying-up with VIHE, Brahmakumaris, Art of living foundation, etc. Further, institute has also been offering courses on Human Values and Professional Ethics, Gender Sensitization, Environmental Studies, Indian Constitution etc. All these have been facilitating faculty and students of the institute, developing empathy-oriented compassion, practice gender equality, realizing and appreciating the economic and other contribution of women and addressing environmental issues towards sustainable development of society.</p>
5. Focus on Outcome based education (OBE):	<p>Institution has adopted OBE ever since 2010. Geethanjali has been striving hard in providing OBE, which clearly focuses and organizes everything in an educational system around "what is essential for all students to be able to do successfully at the end of their learning experiences". Accordingly, we have defined our PEOs, using the POs of NBA, organized the curricula in the form of several courses, specified their associated course outcomes. Consequently, adopted pedagogical practices, and subsequently aligned assessments to make sure the learning ultimately happens, ascertaining room for improvement in teaching and learning. Our OBE's Accent is on Promoting Thinking Process. All our faculty appreciate the fact that any learning should promote critical thinking and thus, our main focus has been on ensuring learning rather than teaching, as students cannot learn, if they do not think, since, any learning that doesn't involve thinking is absolutely of "no use". Hence, our pedagogical practices employed engage students with the course content, promoting critical thinking. Our faculty believe that a subject/course "does not exist in isolation", and therefore, help students make "links" to other subjects/courses, thereby motivating them towards continuous/lifelong learning. Faculty strive hard and ensure students appreciate "thinking process" and "enjoy learning" thereby students become self explorers, who ultimately contribute to</p>

	<p>"Technological Advancements" for "Sustainable Societal Development". Our faculty ensure students acquire specific knowledge, practical skills through experimental and experiential learning (laboratory work, problem/project-based learning, internships, and industrial visits), develop attitude and higher order thinking skills during their course study, leading to professional development. Our faculty adopt various assessment tools to evaluate students' learning by aligning assessment to learning outcomes in a course, and provide feedback to students about their learning and accordingly, adjust their pedagogical practices and/or students' learning behaviours to ensure improved student learning. Towards the end, our OBE programs ensure, Teaching is purposeful and systematic, rather than haphazard, while still allowing students to discover, to follow their interests, to take responsibility for their own learning, and to nurture and develop them both academically, personally and professionally. Teachers provide students with appropriate and purposeful learning experiences and opportunities so that students acquire useful knowledge, develop higher order thinking skills, creativity, originality, self-motivation and independence, which can be used for technological advancements and sustainable societal development.</p>
6. Distance education/online education:	<p>Our faculty make use of ICT-enabled tools for Classroom teaching-learning practices, preparing relevant power point presentations and videos to augment student learning experiences. Real time simulation exercises and virtual lab exercises adopted by teachers help in the demonstration of complex concepts so that students comprehend/demystify them with ease and are able to understand the nuances of the exercises better. Such efforts have borne fruits in terms of not only better comprehension of the concepts by the learners but also enhanced their long-term knowledge retention abilities. Students and faculty have unlimited access to the institutional Wi-Fi network and digital library, for protracted ICT-enabled teaching-learning.</p>

Extended Profile

1 Program

1.1

Number of programs offered year-wise for last five years

2020-21	2019-20	2018-19	2017-18	2016-17
12	8	7	7	10
File Description		Document		
Institutional data in prescribed format		View Document		

1.2

Number of departments offering academic programmes

Response: 08

2 Students

2.1

Number of students year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
3865	3684	3635	3440	3157
File Description		Document		
Institutional data in prescribed format		View Document		

2.2

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

2020-21	2019-20	2018-19	2017-18	2016-17
926	873	552	498	475
File Description		Document		
Institutional data in prescribed format		View Document		

2.3**Number of students appeared in the examination conducted by the Institution, year-wise during the last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
3861	3642	3552	3339	3136
File Description		Document		
Institutional data in prescribed format		View Document		

2.4**Number of revaluation applications year-wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
446	658	569	598	678

3 Teachers**3.1****Number of courses in all programs year-wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
775	677	580	609	707
File Description		Document		
Institutional data in prescribed format		View Document		

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

2020-21	2019-20	2018-19	2017-18	2016-17
246	234	231	239	254
File Description		Document		
Institutional data in prescribed format		View Document		

3.3

Number of sanctioned posts year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
246	234	231	239	254
File Description		Document		
Institutional data in prescribed format		View Document		

4 Institution**4.1****Number of eligible applications received for admissions to all the programs year-wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
1149	978	1067	1051	1048
File Description		Document		
Institutional data in prescribed format		View Document		

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

2020-21	2019-20	2018-19	2017-18	2016-17
364	377	355	384	407
File Description		Document		
Institutional data in prescribed format		View Document		

4.3**Total number of classrooms and seminar halls****Response: 73****4.4****Total number of computers in the campus for academic purpose****Response: 1818**

4.5

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

2020-21	2019-20	2018-19	2017-18	2016-17
1910.58	1798.45	1717.51	1584.52	1285.66

NAAC

4. Quality Indicator Framework(QIF)

Criterion 1 - 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 is reflected in Programme outcomes (POs), Programme Specific Outcomes(PSOs) and Course Outcomes(COs) of the Programmes offered by the Institution.

Response:

Geethanjali being an autonomous HEI, has ensured a systematic procedure for the design, development, implementation and revision of its curricula as aligned to the institution's vision and mission. All departments with their respective vision and mission have established their corresponding Program Educational Objectives (PEOs), defined Program Specific Outcomes (PSOs) and using the Program Outcomes (POs) of NBA, prepared PO-PEO matrix to ensure that 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 and defined respective course outcomes (COs), in line with Bloom's Taxonomy levels, in particular, the Higher Order Thinking Skills (HOTS), meeting the stated POs and PSOs and prepared PO/PSO-CO matrix.

While preparing the curriculum and subsequent revisions (once in two years), each BoS gathers extensive inputs from all stakeholders, namely, industry, R&D establishments, members of professional bodies, alumni, faculty, government and community. Each BoS also considers impetus given to infrastructure sector, GDP earned from various sectors along with the manpower requirements, and Government's directives towards "**Make in India**" as also "**Aatma Nirbhar Bharath**".

Curricula are approved by the Academic Council, with due deliberations on their relevance, for further revision, if any, so that Institution's vision and mission are reflected in each program offered by the institution.

Courses are broadly classified into:

- **Core:** Basic/Engineering Sciences, Humanities, Social Sciences and Engineering.
- **Electives:** Professional Electives which enrich students with technological advancements, and Open Electives which promote philosophy of liberal education.
- **Value added courses:** to enhance employability, creativity, innovation, team-work, communication, problem solving ability, Logical reasoning, environmental aspects for sustainability, professional ethics and integrity, Project management and finance, Design Thinking, Internship, projects/ seminars, entrepreneurship insights, value education, citizenship roles, catering to the local, regional and global needs.

All the above provide the students with **liberal and holistic education** with **experimental and experiential learning** through simulation and hands-on operations, to be globally competitive.

As per NEP 2020, multi-disciplinary choices are available for learners, through a plethora of courses across departments, under the **Choice Based Credit system (CBCS)** and **value added courses** on usage of

modern tools as adopted by industry, promoting analytical thinking, creativity and innovation, and building a culture of innovative spirit, thereby transforming the learners to be industry-ready, relevant and build an attitude of serving the society towards sustainable development:

The following are some notable courses introduced in the corresponding revisions:

2016-18:

- Computational Mathematics with lab
- Actuarial Statistics
- Banking and Insurance
- Foreign Language
- Hybrid Electric Vehicles
- Nano-materials and Technology
- Pavement analysis and design with lab
- Earth Retaining Structures

2018-20

- Deep learning
- Electronic Sensors
- IoT

Courses with hands on lab exercises:

- Artificial Intelligence
- Machine Learning
- Operations Research
- Blockchain Technologies
- Data Analytics
- Project-orientation
- IT workshop including Sci-lab

2020-21

- 5G mobile communications
- Six English courses (Three new)
- IoT analytics
- Computational Intelligence
- Quantum Computing and Cryptography

Courses with hands on lab exercises:

- Statistics for Machine Learning
- Digital Forensics
- Wireless sensor networks
- Smart Sensors and Instrumentation
- Design Thinking

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

1.1.2 Percentage of Programmes where syllabus revision was carried out during the last five years.

Response: 53.33

1.1.2.1 Number of all Programmes offered by the institution during the last five years.

Response: 15

1.1.2.2 How many Programmes were revised out of total number of Programmes offered during the last five years

Response: 8

File Description	Document
Minutes of relevant Academic Council/BOS meeting	View Document
Details of program syllabus revision in last 5 years(Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

1.1.3 Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the institution during the last five years

Response: 100

1.1.3.1 Number of courses having focus on employability/ entrepreneurship/ skill development year-wise during the last five years..

2020-21	2019-20	2018-19	2017-18	2016-17
775	677	580	609	707

File Description	Document
Programme / Curriculum/ Syllabus of the courses	View Document
MoU's with relevant organizations for these courses, if any	View Document
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	View Document
Average percentage of courses having focus on employability/ entrepreneurship(Data Template)	View Document
Link for Additional Information	View Document

1.2 Academic Flexibility

<p>1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years.</p> <p>Response: 23.27</p>	
<p>1.2.1.1 How many new courses are introduced within the last five years</p> <p>Response: 575</p>	
<p>1.2.1.2 Number of courses offered by the institution across all programmes during the last five years.</p> <p>Response: 2471</p>	
File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for Additional Information	View Document
<p>1.2.2 Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course system has been implemented (Data for the latest completed academic year).</p> <p>Response: 100</p>	
<p>1.2.2.1 Number of Programmes in which CBCS / Elective course system implemented.</p> <p>Response: 12</p>	

File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for Additional Information	View Document

1.3 Curriculum Enrichment

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

Response:

Human Values and Professional Ethics

Geethanjali believes that its graduates/post-graduates have a responsibility to their Profession and the Organization that they serve. Every employer expects a certain set of skills, knowledge, inputs and attitude in an employee. Attitude normally gets reinforced through the three Es': **Education, Environment, and Experience**. Therefore, our Institution takes adequate care to infuse a positive attitude in our learners by giving relevant inputs, which touch human lives at large. Courses such as "Human Values and Professional Ethics", "Business Ethics", Construction Management, Estimation and Costing, Engineering Economics and Accountancy facilitate development of a holistic perspective among students towards life, profession, empathy and happiness, based on the right understanding of the purpose of human existence, inculcating self-actualization, the highest of the Maslow's pyramid of hierarchy of needs. Such a holistic perspective forms the basis of value-based education and quality of college life provided at Geethanjali.

Students are sensitized to **Professional Ethics**, through various activities organized under the students' clubs so that as they graduate, they are able to discharge their professional responsibilities with integrity, dignity, fairness and courtesy. They are also sensitized to avoid activities which may lead to conflict with colleagues and/or organizations, not accept any financial/contractual obligation on behalf of his/her employer/client without due authority, treat colleagues and co-workers fairly and not misuse the advantage of their hierarchical position.

Gender equality and Sensitization:

For students to demonstrate sensitivity with regard to gender issues, particularly on biological changes with age, showing empathy and practicing healthy socialization is imminent for both the genders. A course on "**Gender Sensitization**" introduced in the curriculum is implemented through activity-based learning. Gender issues are also discussed in courses, namely, "Human Resource Management" and "Indian Constitution". For promoting Gender Sensitization, several activities are organized in the institution which include, "Gender Equality - Its importance", "Women in Nation Building", "Training on self-defense techniques", "Health and Hygiene" and "Impact of gender violence on society". They are also sensitized to respect women and their contribution to the economy and development of the society and practice

gender equality by sharing domestic duties and the like.

Environment and Sustainability:

To create awareness about the environmental impact on society due to urbanization and industrialization, courses on “Environmental Studies”, “Green Buildings”, “Global Warming and Climate Change”, “Renewable Energy Sources”, “Energy Conservation Management”, “Environmental Engineering”, “Air Pollution and Control” are included in the curriculum, which facilitates students to understand the ecosystem, its functions, and acquire knowledge about the different types of natural resources, namely, land, water, minerals, non-renewable energy, their excessive usage leads to detrimental effects on the environment is realized by understanding the different types of pollution, their impact on global environment and ways of controlling them. Campaigns on “Dust and Pollution Free Environment”, “Haritha Haram” (tree plantation), “Swachh Bharath”, are conducted with participation of students to promote ecological balance for sustainable development.

File Description	Document
Upload the list and description of the courses which address the Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum	View Document
Any additional information	View Document
Link for Additional Information	View Document

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

Response: 43

1.3.2.1 How many new value-added courses are added within the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
12	8	7	9	7

File Description	Document
List of value added courses (Data Template)	View Document
Brochure or any other document relating to value added courses	View Document
Any additional information	View Document
Link for Additional Information	View Document

1.3.3 Average Percentage of students enrolled in the courses under 1.3.2 above.

Response: 30.88

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

2020-21	2019-20	2018-19	2017-18	2016-17
713	1202	1190	1264	1068

File Description	Document
List of students enrolled	View Document
Any additional information	View Document
Link for Additional Information	View Document

1.3.4 Percentage of students undertaking field projects/ internships / student projects (Data for the latest completed academic year)

Response: 100

1.3.4.1 Number of students undertaking field projects / internships / student projects

Response: 3865

File Description	Document
List of programs and number of students undertaking field projects / internships / student projects (Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

1.4 Feedback System

1.4.1 Structured feedback for design and review of syllabus – semester-wise / year-wise is received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni

Response: A. All 4 of the above

File Description	Document
Any additional information	View Document
Action taken report of the Institution on feedback report as minuted by the Governing Council, Syndicate, Board of Management	View Document
URL for stakeholder feedback report	View Document
Link for Additional Information	View Document

1.4.2 The feedback system of the Institution comprises of the following :

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

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document
URL for stakeholder feedback report	View Document

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Average Enrolment percentage (Average of last five years)

Response: 94.62

2.1.1.1 Number of students admitted year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
976	1024	987	1057	1055

2.1.1.2 Number of sanctioned seats year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
1038	1080	1014	1098	1164

File Description

Document

Institutional data in prescribed format (Data Template)

[View Document](#)

Any additional information

[View Document](#)

Link for Additional Information

[View Document](#)

2.1.2 Average percentage of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy) during the last five years (exclusive of supernumerary seats)

Response: 132.4

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

2020-21	2019-20	2018-19	2017-18	2016-17
444	519	500	508	526

File Description	Document
Institutional data in prescribed format	View Document
Link for Additional Information	View Document

2.2 Catering to Student Diversity

2.2.1 The institution assesses the learning levels of the students and organises special Programmes for advanced learners and slow learners

Response:

Geethanjali understands that most obvious characteristic of a slow learner, 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 (co-operative, competitive), and instructional materials (videos, workbooks, co-operative activities, simulations, etc). Other immediately noticeable characteristics of slow learners are their deficiencies in basic skills (reading, writing, and mathematics), difficulty in comprehending abstract ideas, and most disconcerting is, unsystematic and less careful work habits.

Keeping these in view, our faculty monitor students' performance during regular class activities, lab work, tutorials, assignments, mentoring, midterm and results of semester end examinations.

In addition, of late, we have been administering psychometric tests. Students secured <50% of marks in midterm examinations, not able to participate enthusiastically in tutorials, unable to submit assignments in time, showing lack of interest with irregular attendance, not coping up with laboratory exercises are identified as slow learners. This exercise is carried out course-wise.

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 also employed.

Slow Learners are given separate learning materials through reinforcement of small segments of learning and are associated with a peer who is an advanced learner. Further, emphasizing on frequent assessment of the student progress, mentoring with close monitoring is conducted, parents are informed, is found to be reasonably effective.

Additionally, based on the content of courses, faculty provide compensatory teaching, use ICT methodologies (pictures/animations/videos) and supplements it with additional learning resources and activities (through laboratory exercises and simulations, group discussions and co-operative learning, mini and major projects by forming a group of students, one each of advanced learner and slow learner).

Advanced learners are encouraged to take up 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, facilitating them to build prototypes, participate in coding competitions, etc.

All learners are given training on “Logical Reasoning, improving Vocabulary, Verbal Reasoning, and Quantitative aptitude, situational writing etc.” to get through preliminary test conducted by various companies for placements as well as preparation towards CAT/GRE/IELTS/TOEFL and other Public Sector Undertakings.

In addition, 14 student professional bodies and 07 student clubs conducted several co-curricular activities wherein, all learners participated, which is a regular exercise.

All 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	Document
Link for Additional Information	View Document

2.2.2 Student - Full time teacher ratio (Data for the latest completed academic year)

Response: 16:1

File Description	Document
Link for Additional Information	View Document

2.3 Teaching- Learning Process

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

Response:

Geethanjali is committed to enhance the learning experience of its students, and follows a rigorous system of student-centric learning methods to inculcate and augment various skills among the students. Curricula of all programs include 30% of practicals, hands-on and activity-oriented courses.

Experiential Learning: The college practices the ‘Learn as you do’ method of learning through laboratory exercises, mini and major projects, design thinking, activity-oriented courses/internships/industry visits and Hackathons which facilitate the development of Problem-Solving Skills, through Project-Based Learning, in which various abilities such as creative designing of a system, applying an abstract concept or idea to a real-world problem, visualization of product design and realizing it, preparing an appropriate technical report and presenting it to a technical audience are achieved.

In a few cases (02), emanating from such experiential learning, prototypes were developed by students and submitted for patenting or published as a patent. In few other cases (20), the ideations and applications

were presented at Hackathons, which have won them laurels and awards/prizes (17). Every year, projects are exhibited at Exhibitions organized by the college and elsewhere, wherein, invited industry experts assess and identify some as suitable for product development, and reward them (03).

Collaborative and Cooperative Learning is facilitated through peers wherein students discuss ideas with classmates, engage in subject-specific discussions and get feedback from classmates thereby augmenting mutual teaching-learning, assimilating multiple views to deepen the knowledge, promoting critical thinking and mitigating learner isolation. This has also led to inculcating effective teamwork and communication (including interpersonal and cross-cultural awareness), skills fostering individual accountability within the team, resulting in developing independent learning strategies.

Group and participative learning towards development of Professional Competencies:

Students take up course-based group projects, discuss ideas and develop ways to solve identified problems for specific applications, develop prototypes for further recognition and incentivization.

Students discuss topics on emerging trends, innovative business ideas, prepare technical articles, business reports, present them at seminars/symposia. This promotes students' sensitivity towards the feelings of other team members in the group, help to develop listening skills, to be open to others' ideas, and look for opportunities to work collaboratively thus adding value to their profession and person, both, academically and socially.

Learning through value added courses: Students develop hands on skills on advanced/emerging tools gaining adequate exposure to modern tool usage. During the last five years 43 value added courses have been offered and 5437 students have been the beneficiaries.

Interactions with various external experts: Students are exposed to elite Guest Lectures, Industrial Visits, and Field trips, making them familiar with occupational environment, develop an ability to understand: what engineers do, the language and process of engineering design, and its economical aspects. They also understand the non-technical yet essential other side of engineering: its importance and impact on societal development and environmental issues for sustainability.

Aside of the above, during the last five years, our students have taken up several Massive Open Online Courses (MOOCS) and such others (776).

File Description	Document
Any additional information	View Document

2.3.2 Teachers use ICT enabled tools including online resources for effective teaching and learning process.

Response:

Faculty at Geethanjali use appropriate ICT-enabled tools for effective teaching-learning and evaluation processes in the following ways:

ICT-enabled tools used for Teaching-Learning:

Our faculty is quite savvy with the use of ICT-enabled tools for Classroom teaching-learning practices. Using Digital writing pads, preparing relevant power point presentations and videos, augment student learning experiences. Real time simulation exercises and virtual lab exercises adopted by teachers help in student-friendly demonstrations of complex concepts so that students comprehend/demystify them with ease and are able to understand the nuances of the exercises better. Such efforts have borne fruit in terms of not only better understanding by the Learners but also enhanced their long-term knowledge retention abilities. Students and Faculty have unlimited access to the institutional Wi-Fi network and digital library, for protracted ICT-enabled teaching-learning.

Apart from the above-mentioned classroom and laboratory practices, our teachers are proficient in engaging the students through virtual modes using several platforms such as Google Suite, GoToMeeting, Microsoft Teams, Zoom and Cisco Webex. Need-based online teaching-learning practices which was mandated during the recent pandemics has now become a dual mode of teaching-learning apart from regular classroom practices. Guest lectures, Remedial classes, value added courses, orientation/induction programs, and a few virtual industry visits (held only during the pandemic), has widened the academic horizon of both the faculty and the students.

WhatsApp/Telegram groups, Gmail groups, and email groups with Geethanjali's domain name have been shared amongst the faculty and students, to ensure interactive and collaborative work as also exchange of content between teachers and students. Such interactive sessions are closely monitored by the respective mentors, for surety of academic exchanges and discussions.

Learners have been able to get an opportunity to work on live projects with other learners in and beyond/outside the college, interact with experts from other Institutions/organizations, resulting in not only a qualitative improvement of the Teaching-Learning Process but also ushering an awareness and abilities for collaborative working and mitigating learner isolation.

Use of ICT in Remedial Teaching

Remedial Teaching using ICT through video lectures (144) prepared by teachers, facilitates flexibility to learners to learn at their own pace and seek help from the teacher as and when required. URLs of animated videos and faculty lectures captured are uploaded onto YouTube (144).

Use of ICT in Evaluation has facilitated quicker assessment and feedback within a short duration of administering the tests/examinations.

Virtual Laboratories available on MHRD website, extensively used both by teachers and students provides better insight, experience and real time value addition to the academics, especially while studying the influence of a variable or a component on the performance of a system.

Use of ICT for enhancing soft skills among students through video lectures, remote live sessions on programming skills, value added courses, aptitude skills (Quantitative, logical, reading comprehension, vocabulary, situational writing etc.) has enhanced their Thinking and Reasoning, improved comprehension capabilities, speed of reading and vocabulary, thus helping in their career progression and employability.

File Description	Document
Provide link for webpage describing ICT enabled tools including online resources for effective teaching and learning process	View Document
Link for Additional Information	View Document

2.3.3 Ratio of students to mentor for academic and other related issues (Data for the latest completed academic year)

Response: 21:1

2.3.3.1 Number of mentors

Response: 184

File Description	Document
Upload year wise, number of students enrolled and full time teachers on roll	View Document
Circulars pertaining to assigning mentors to mentees	View Document
Link for additional information	View Document

2.3.4 Preparation and adherence of Academic Calendar and Teaching plans by the institution

Response:

Geethanjali meticulously plans and executes all academic, co-curricular and extra-curricular activities through a well-conceived and executed academic calendar.

The Academic calendar for each program is prepared by the Dean, Academics in consultation with HoDs, Controller of Examinations and Principal. Based on this each HoD in consultation with in-charges/coordinators enumerates various academic, co-curricular and extra-curricular activities in each semester/year. These are collated into a detailed academic calendar, reviewed by the College Academic Committee, and presented to the Academic Council, which approves with or without modifications. This is then circulated to all concerned well in advance and hosted on the website.

Six to Eight weeks prior to the commencement of each semester, HoDs elicit course options from the faculty members which they would like to teach in the ensuing semester. The course options are given in such a way that each faculty member has at least one course with an associated laboratory component. Courses are allocated to the faculty based on their experience and expertise. When the number of sections is more, the senior most among the faculty teaching the particular course is designated as the course coordinator, who in association with others teaching the same course prepares the lesson plans for the course, specifying the array of activities, for the particular semester. They also prepare a course file by specifying the objectives of the course along with expected Learning Outcomes (LOs) and methods for assessing the Course Outcomes (COs).

The **course objectives** specify the role it plays within each Program, its uniqueness within the Program and its relationship with other courses, as also the essential knowledge or skills likely to be gained from pursuing it, prerequisites for this course and its outcomes.

Laboratory instructions are planned such that students acquire a thorough understanding of scientific methods/inquiries through problem solving, which include identifying and defining a problem, formulating the hypotheses, designing relevant experiments, collecting data through observations and experimentation, interpreting data and drawing conclusions. Subsequently, a report on the outcomes and their implications is prepared.

Tutorial sessions are conducted by both teachers handling the course, through involved discussions and interactions with Learners and achieving solutions to problems.

Teaching diary is maintained by each teacher detailing the topics discussed during each session, along with the record of students' attendance.

Weekly report is maintained by each department for each section with track of the number of sessions engaged for each course along with the topics discussed and this is monitored by the Head of the Department and Dean, Academics.

Course Coordinator monitors the progress of the course from time to time during each semester and communicates the same to the programme coordinator who advises other teachers teaching the same course appropriately.

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

Various committees (both statutory and non-statutory) constituted for periodical reviews monitor the progress of curricular, co-curricular and extra-curricular activities. Academic committee, Academic council and Governing Body meet at stipulated intervals and review the activities at the institutional level.

File Description	Document
Upload Academic Calendar and Teaching plans for five years	View Document

2.4 Teacher Profile and Quality

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

Response: 100

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years(Data Template)	View Document
List of the faculty members authenticated by the Head of HEI	View Document
Link for Additional Information	View Document

2.4.2 Average percentage of full time teachers with Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. during the last five years (consider only highest degree for count)

Response: 18.84

2.4.2.1 Number of full time teachers with *Ph.D./D.M/M.Ch./D.N.B Superspeciality/D.Sc./D’Lit.* year wise during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
60	54	46	33	33

File Description	Document
Institutional data in prescribed format (Data Template)	View Document
Link for Additional Information	View Document

2.4.3 Average teaching experience of full time teachers in the same institution (Data for the latest completed academic year in number of years)

Response: 5.47

2.4.3.1 Total experience of full-time teachers

Response: 1346.8

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for Additional Information	View Document

2.5 Evaluation Process and Reforms

2.5.1 Average number of days from the date of last semester-end/ year- end examination till the declaration of results year-wise during the last five years**Response:** 40.94**2.5.1.1 Number of days from the date of last semester-end/ year- end examination till the declaration of results year wise during the last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
51.79	40.57	18.14	35.7	58.5

File Description	Document
Institutional data in prescribed format (Data Template)	View Document
Link for Additional Information	View Document

2.5.2 Average percentage of student complaints/grievances about evaluation against total number appeared in the examinations during the last five years**Response:** 17.03**2.5.2.1 Number of complaints/grievances about evaluation year wise during the last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
446	658	569	598	678

File Description	Document
Number of complaints and total number of students appeared year wise	View Document

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

Geethanjali has adopted a comprehensive EMS facilitated through IT integration and backed by a state-of-the-art hardware and software systems. This has tremendously reformed the examination procedures and processes including the CIA.

As per the academic calendar exam branch issues notifications related to Midterm examinations, Semester end examinations through college portal, WhatsApp groups and group mail.

The following operations pertaining to conduct of examinations are automated

- Comprehensive student profile database
- Sending appointment orders to external examiners
- Student registrations for semester end (Regular & Supplementary) examinations
- Generation of hall tickets
- Student seating plan generation
- Barcoded answer booklet generation and printing with student photo and signature for end semester exams
- Attendance sheet generation
- Scanning, coding and decoding of answer booklets
- Digital evaluation facilitating remote evaluation for both CIE and SEE
- Result processing (with built-in Grafting and Moderation as per affiliating university guidelines)
- Publication of results
- Generation of
 - Memorandum of marks with SGPA and intermittent CGPA up to the end of corresponding semester
 - Consolidated memorandum of marks with SGPA and CGPA
 - Provisional Certificate with student photo
 - Transcripts
- Result analysis, branch wise, year wise, course wise and overall

Examination Procedure

Midterm examinations: Two midterm examinations and one make-up test are conducted

For each theory course there is an internal evaluation for 30 marks.

Reforms in midterm examination:

1. Two sets of question papers, are set by a team of internal examiners, headed by the course coordinator. The question paper is then evaluated by a department question paper evaluation committee comprising senior faculty members of the department and a member from other department to verify whether
 - The question paper tests student's higher order thinking skills, wherever feasible
 - Balanced question paper covering all outcomes is given
 - Question paper is adhering to various levels of Bloom's taxonomy, with more questions pertaining to higher levels for third and final year courses, and lesser number of questions for second and first year courses.

Proforma for evaluating quality of the question paper in midterm examination is enclosed as additional document.

Semester End Examination: Panel of examiners for preparation of question papers and evaluation of the answer scripts, chosen from various autonomous colleges and universities of repute, duly approved by the

Board of studies of the concerned department.

Guidelines are given to 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/chief examiner (subject expert/course coordinator).

Evaluation:

1. 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 and chief examiner conducts a meeting with them, explains scheme of evaluation.
2. 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. If the chief examiner is not satisfied with the evaluation methodology adopted by the evaluator, another 10% of the scripts are again evaluated by the chief examiner in manner similar described above. If the chief examiner is still not satisfied with the evaluation, the matter is escalated to the controller of examinations for further action. The controller of examinations shall then arrange re-evaluation of the scripts either by the same evaluator or a different evaluator.
3. No evaluator shall be given more than a bundle (60 answer booklets) in a day.

All the above reforms have resulted in improving quality of the examination system, ensuring confidentiality in evaluation and bringing transparency in the process.

File Description	Document
Link for Additional Information	View Document

2.6 Student Performance and Learning Outcomes

2.6.1 Programme and course outcomes for all Programmes offered by the institution are stated and displayed on website and communicated to teachers and students.

Response:

Geetanjali has adequate measures to communicate the COs, both to the teachers and students well in time ahead of the beginning of the Course work, in the following manner:

- Course outcomes of each course are explicitly mentioned in the book that contains "Academic Regulations, Program Structure and Detailed Syllabus" which is given to all faculty members 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 which is also displayed on the institutional website.
- Course Outcomes of each lab course are also given in the lab manual/student workbook, in addition to displaying in the corresponding lab.

Following are sample Course Outcomes of UG program of each department:

1. 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.

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

Course: Digital Design

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.

3. 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.

4. 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	Document
Upload COs for all courses (exemplars from Glossary)	View Document
Link for Additional Information	View Document

2.6.2 Attainment of programme outcomes and course outcomes are evaluated by the institution.

Response:

Geethanjali follows all the norms of the Statutory Regulatory Authorities in evaluating/measuring the

attainment of both Program Outcomes (POs) and Course Outcomes (COs):

Procedure for measuring attainment of COs:

1. CO attainments are calculated by considering marks obtained in each question of all the 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, which is made applicable to all COs.
3. For measuring the attainments of COs of a theory course, the **targets fixed** are:
 - Mid-Term Subjective: 60% of maximum marks related to each CO
 - Assignments and Tutorials (if any): 60% of maximum marks
 - Mid-Term Objective: 60% of maximum marks
 - Semester End Examination: 60% of maximum marks related to each CO

1. Attainment levels are calculated as follows:

Semester End Examination (SEE)	
Levels for CO attainment measurement	
Level 1	> or = 40% and <50% of Students attain the target Marks
Level 2	> or = 50% and <60% of Students attain the target Marks
Level 3	> or = 60% of Students attain the target Marks

Mid-term Exams – Subjective, Objective, Assignments and Tutorials (CIE)	
Levels for CO attainment measurement	
Level 1	> or = 60% and <70% of students attain the target
Level 2	> or = 70% to <80% of students attain the target
Level 3	> or = 80% of students attain the target

Indirect attainment – Course End Survey, CRC and TLP feedback	
Levels for CO attainment measurement	
Level 1	> or = 60% and <70% of feedback score
Level 2	> or = 70% and <80% of feedback score
Level 3	> or = 80% of feedback score

1. In the case of “Either-or” question, maximum marks scored by student is considered for CO attainment.
2. Direct and indirect measurements for CO attainment:
 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**

3. For practical examinations (CIE and SEE), 60% of maximum marks are kept as **target** for attainment. Distribution of marks: SEE-70, CIE-30(Mid-Term-15, Day to day-15)

1. CO attainment levels:



80% for Level3, 70% for Level2 and 60% for Level1

2. Overall CO Attainment = 0.75* Direct Attainment Level + 0.25* Indirect Attainment

4. Similar procedure is adopted for Projects, Seminars, Mini Projects, and Internships.

Procedure for measuring the attainments of POs and PSOs:

- 75% of weightage is given for the Direct attainment of that PO/PSO obtained in terms of Levels 1,2 and 3, which is the weighted average of all the COs related to that PO/PSO and
- 25% of weightage for Indirect measurement includes:
 - Exit feedback on POs/ PSOs (10%)
 - Alumni Survey on POs/ PSOs (10%) and
 - Co-curricular and Extra-curricular activities (5%).

File Description	Document
Any additional information	View Document

2.6.3 Pass Percentage of students(Data for the latest completed academic year)

Response: 91.88

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

Response: 928

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

Response: 1010

File Description	Document
Upload List of Programmes and number of students passed and appeared in the final year examination(Data Template)	View Document
Link for the annual report	View Document

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response:

File Description	Document
Upload database of all currently enrolled students	View Document

Criterion 3 - 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

Response:

Geethanjali strongly believes that research is an important and integral part of any scholarly activity of an HEI. Apart from facilitating and developing creativity, innovation, analytical thinking and problem-solving capabilities among students and faculty, the outcome adds new knowledge and strengthens the economic status of the Nation. Therefore, the institution has progressively updated its research facilities. Towards this end, the College had applied for recognition to the Directorate of Scientific and Industrial Research (DSIR) in 2011 and it has been recognized as Scientific and Industrial Research Organization (SIRO) since then.

Research labs in the areas of Data Analytics and Security, IoT, Embedded systems and Robotics were established in collaboration with IBM, Redpine, C-DAC, SmartBridge respectively. Ansys, Siemens NX-CAD, AUTOCAD, STADDPRO, SOFTX, MATLAB, Cadence, Keil, MASM software, Metal Matrix Composites/ Micro image capture and analysis, PCB fabrication lab are made available for the use of students as well as faculty for both, research and project-related work.

Equipment provided for the faculty to pursue research: Digital balance, Stir Casting Furnace, magnetic stirrer with thermostat etc. Faculty and students of Science, Mechanical and Civil Engineering departments are utilizing these facilities optimally, to complete their experimental work related to their research endeavors.

The goal of research policy is to foster an environment of open inquiry and academic freedom in which individuals can pursue scholarly activities. Towards this goal:

Each department is divided into groups/divisions as per various specializations. Along with the senior Professor, a few other senior faculty of that group/division act as Lead Faculty and act as mentors to other faculty of that division and guide them in their academic pursuits.

The college has a research committee comprising of internal members and external experts, having industrial/research experience. Dean, R&D organizes research meetings to: (a) review ongoing research, (b) identify potential areas of research and plan accordingly. Students are encouraged to take up research oriented projects and are financially supported to attend/participate in conferences and present their research work.

The faculty are encouraged to register for Ph.D/pursuing research by giving study/sabbatical leave, seed money, if any, asked for, incentives for publications in journals and attending/organizing conferences.

College collaborated with IICT, Hyderabad, Hyderabad Central University, JNTUH etc. towards strengthening of research and developmental activity.

In addition to the above college also has a Consultancy Policy to build a strong tie up with industries and to

work in the specialized areas to meet their needs, generating revenue and to build better infrastructure in the college and train students with industrial orientation.

Equipments/Softwares Procured	Amount spent in lakhs o		
	2016-17	2017-18	2018-19
MATLAB	2.640		
SOFTX(ACSL LAB)	0.715	0.450	
KEIL-PK51-ED25-software	0.690	0.637	
IBM-COGNOS tool		14.160	
IoT kits-Redpine		0.798	
BEES: Equipment for Alternate energy system		3.000	1.000
VIVADO-XILINX		0.640	
DrillBit Extreme Anti-Plagiarism Software			0.767
SIEMENS-NX-CAD			7.080
Robotics lab equipment			
IoT kits by CDAC			
Magnetic Stirrer with Thermostat and Digital Balance			
PS-CAD	2.100		
Dell Laptop, metallurgical microscope and devices, Stir Casting Machine, Printed Hopper			
TOTAL	6.145	19.69	8.847

File Description	Document
Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	View Document
Any additional information	View Document
URL of Policy document on promotion of research uploaded on website	View Document

3.1.2 The institution provides seed money to its teachers for research (average per year, INR in Lakhs)

Response: 25.04

3.1.2.1 The amount of seed money provided by institution to its faculty year-wise during the last five years (INR in lakhs).

2020-21	2019-20	2018-19	2017-18	2016-17
18.343	36.776	21.512	32.032	16.526

File Description	Document
Minutes of the relevant bodies of the Institution	View Document
List of teachers receiving grant and details of grant received	View Document
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	View Document

3.1.3 Percentage of teachers awarded national / international fellowship for advanced studies/research during the last five years

Response: 1.5

3.1.3.1 The number of teachers awarded national / international fellowship for advanced studies / research year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
10	3	0	0	5

File Description	Document
List of teachers and their international fellowship details	View Document
e-copies of the award letters of the teachers	View Document

3.2 Resource Mobilization for Research

3.2.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)

Response: 65.02

3.2.1.1 Total Grants from Government and non-governmental agencies for research projects , endowments, Chairs in the institution during the last five years (INR in Lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
11.680	14.953	32.890	4	1.5

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

3.2.2 Percentage of teachers having research projects during the last five years

Response: 2.33

3.2.2.1 Number of teachers having research projects during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
9	10	5	2	2

File Description	Document
Names of teachers having research projects	View Document
Link for additional information	View Document

3.2.3 Percentage of teachers recognised as research guides

Response: 2.44

3.2.3.1 Number of teachers recognized as research guides

Response: 6

File Description	Document
Upload copies of the letter of the university recognizing faculty as research guides	View Document
Any additional information	View Document
Link for additional information	View Document

3.2.4 Average percentage of departments having Research projects funded by government and non-government agencies during the last five years

Response: 38.1

3.2.4.1 Number of departments having Research projects funded by government and non-government agencies during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
4	4	2	2	1

3.2.4.2 Number of departments offering academic programmes

2020-21	2019-20	2018-19	2017-18	2016-17
8	7	6	6	6

File Description	Document
Supporting document from Funding Agency	View Document
List of research projects and funding details	View Document
Paste link to funding agency website	View Document

3.3 Innovation Ecosystem

3.3.1 Institution has created an eco system for innovations, creation and transfer of knowledge supported by dedicated centers for research, entrepreneurship, community orientation, Incubation etc.

Response:

Geethanjali fervently believes that educational institutions are reflectors of the 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 technical and societal problems.

Towards this motive, we have established an incubation Centre 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, including invited external/industry experts exchange ideas on problems facing the society and provide environmental-friendly and sustainable solutions to societal problems through innovative research projects, working collaboratively and cooperatively with all concerned.

The philosophy of our incubation Centre is to provide resources to students and faculty so that their ideas can be transformed into reality thereby inculcating an entrepreneurial culture among them. Ecosystem for innovation, creation and transfer of knowledge is largely addressed through this incubation Centre which works in tandem with the R&D cell and Entrepreneurship Development Cell of the college. Since 2016, our Incubation centre, working as per the guidelines of then Institutes' Innovation Council (IIC) of the Ministry of Education, has organized 46 events, inviting resource persons spanning across several specialized fields which include entrepreneurs, venture capitalists, scientists and other experts. In collaboration with JHUB (Jawaharlal Nehru Technological University Hyderabad Innovation Hub), a State Government funded organization, under section '8' incubation Centre called, JHUB/J-LABs, of our affiliating university, JNTUH, our students have been funded for 25 projects, participated in 20 State and National level competitions and won 7 prizes.

In addition, Design thinking and Entrepreneurship courses are offered to the students by the faculty, industry experts, entrepreneurs, and community.

Entrepreneurship development cell of the college has conducted 79 events from 2016 to 2021.

Geethanjali has adopted the National Innovation and Startup policy (NISIP) for encouraging and nourishing innovation quotient and entrepreneurial abilities of students. This has promoted innovative ideas and 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 senior professors and accordingly seed money is also made available to undertake innovative projects, ultimately resulting IPRs which are protected through patenting with financial support.

We have currently four startups registered and incorporated with the Ministry of Corporate Affairs, Government of India, receiving incubation support from the Geethanjali's incubation centre. College also has registered with MSME, Government of India.

Nineteen MoUs with various organizations have been signed to strengthen innovation/entrepreneurship activities. Students and faculty are facilitated with necessary financial support on need basis, for developing creative and innovative projects and for patenting the same. Our eco-system is designed to provide ample opportunities to students and faculty to showcase their products developed for technology transfer by forging and reinforcing connection between academia, research organizations, industry, business enterprises, and the Government.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

3.3.2 Number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development during the last five years.

Response: 119

3.3.2.1 Total number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
36	25	29	22	7

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

3.4 Research Publications and Awards

3.4.1 The Institution ensures implementation of its stated Code of Ethics for research through the following: 1. Inclusion of research ethics in the research methodology course work 2. Presence of

Ethics committee 3. Plagiarism check through software 4. Research Advisory Committee**Response:** A. All of the above

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

3.4.2 Number of Ph.D's registered per teacher (as per the data given w.r.t recognized Ph.D guides/supervisors provided at 3.2.3 metric) during the last five years**Response:** 3

3.4.2.1 How many Ph.Ds are registered within last 5 years

Response: 18

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

Response: 6

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

3.4.3 Number of research papers per teachers in the Journals notified on UGC website during the last five years**Response:** 1.89

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

2020-21	2019-20	2018-19	2017-18	2016-17
107	93	70	121	65

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

3.4.4 Number of books and chapters in edited volumes / books published per teacher during the last five years**Response:** 0.44**3.4.4.1 Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year-wise during last five years**

2020-21	2019-20	2018-19	2017-18	2016-17
17	35	13	25	16

File Description	Document
List books and chapters in edited volumes / books published	View Document
Any additional information	View Document

3.4.5 Bibliometrics of the publications during the last five years based on average citation index in Scopus/ Web of Science or PubMed**Response:**

File Description	Document
Bibliometrics of the publications during the last five years	View Document

3.4.6 Bibliometrics of the publications during the last five years based on Scopus/ Web of Science - h-index of the Institution**Response:**

File Description	Document
Bibliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	View Document

3.5 Consultancy**3.5.1 Revenue generated from consultancy and corporate training during the last five years (INR in Lakhs).****Response:** 17.97

3.5.1.1 Total amount generated from consultancy and corporate training year-wise during the last five years (INR in lakhs).

2020-21	2019-20	2018-19	2017-18	2016-17
0	3.7	6.0	6.0	2.266

File Description	Document
List of consultants and revenue generated by them	View Document
Audited statements of accounts indicating the revenue generated through consultancy and corporate training	View Document
Any additional information	View Document

3.5.2 Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs).**Response:** 14.54**3.5.2.1 Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs)**

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	14.537	0	0

File Description	Document
List of training programmes, teachers and staff trained for undertaking consultancy	View Document
List of facilities and staff available for undertaking consultancy	View Document
Audited statements of accounts indicating the expenditure incurred on developing facilities and training teachers and staff for undertaking consultancy	View Document
Any additional information	View Document

3.6 Extension Activities

3.6.1 Extension activities are carried out in the neighbourhood community,-sensitising students to social issues, for their holistic development, and impact thereof during the last five years

Response:

Geethanjali promotes regular engagement of faculty, students and staff with the neighbourhood community through various activities. Every Year, programs are organized under which students, faculty and staff participate voluntarily in community-based activities and reach out to the immediate neighbourhood.

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

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

- Blood Donation and Oral Health (Awareness programs on the consequences of consumption of Tobacco, Gutkha etc.) camps, Mega health camp, Covid Vaccination camps for students, staff and faculty. Training programs for Rural Women facilitating self employment are also organized.
- Faculty and students visit nearby government schools and old age homes
- College and two faculty members are contributing towards salary of two teachers in a school of its neighbourhood.

Impact and Sensitization:

Exposure to extension and outreach activities has sensitized students towards social and legal issues, on matters such as domestic violence, dowry, child abuse, female child issues, victims of violence, old and infirm issues, refugees and displaced persons issues and such others.

Activities were also conducted which have led to imbibing values of social responsibility such as:

- Help people in need and distress
- Understand the needs of under privileged children
- Promote cleanliness
- Environmental related issues.
- Develop skill and an aptitude for problem solving.

The skills developed amongst the students through the above activities include social skills communication skills, management skills, leadership skills, analytical skills, and perceptual skills.

The extension activities conducted by National Service Scheme (NSS), Women Protection Cell (WPC) and Environment Club during the last five years are mentioned below:

Body/Club	Number of extension activities conducted			
	2020-21	2019-20	2018-19	2017-18
NSS, WPC, and Clubs	20	22	22	16

File Description	Document
Upload Any additional information	View Document
Paste link for additional information	View Document

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 last five years

Response: 26

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

2020-21	2019-20	2018-19	2017-18	2016-17
8	5	6	5	2

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

3.6.3 Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years

Response: 93

3.6.3.1 Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years

2020-21	2019-20	2018-19	2017-18	2016-17
20	22	22	16	13

File Description	Document
Reports of the event organized	View Document
Number of extension and outreach Programmes conducted with industry, community etc for the last five years	View Document

3.6.4 Average percentage of students participating in extension activities listed at 3.6.3 above during the last five years

Response: 43.78

3.6.4.1 Total number of students participating in extension activities listed at 3.6.3 above year-wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
1552	1989	1661	1512	1108

File Description	Document
Reports of the event	View Document
Average percentage of students participating in extension activities with Govt or NGO etc	View Document

3.7 Collaboration

3.7.1 Number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work

Response: 403

3.7.1.1 Total number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work

2020-21	2019-20	2018-19	2017-18	2016-17
979	376	340	227	93

File Description	Document
Number of Collaborative activities for research, faculty etc	View Document
Copies of collaboration	View Document

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

Response: 46

3.7.2.1 Number of functional MoUs with institutions of national, international importance, other Institutions, industries, corporate houses etc. year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
14	14	11	4	3

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

Criterion 4 - 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 equipment etc.

Response:

Geethanjali has a lush green campus of 13.5 acres, with aesthetically designed buildings, which has been providing notable academic ambience, conducive for Quality Teaching-Learning. The college has adequate infrastructure facilities for Instructional delivery and services as denoted below:

Infrastructure facilities available for Teaching-Learning

Physical Facilities	Total Number	Area (in Sqm.)	No. added during the ensuing A/A period
Classrooms/ Tutorial Rooms	70	5098	12
Laboratories	87	7019	19
Workshops	06	1469	01
Computer Centres	02	326	01
Drawing Hall	02	343	-
Seminar Rooms	03	687	-
Library	01	1064	-
Language Laboratories	02	137	-
Research Laboratories	03	323	01
Examination Center	01	280	-

* Expanded Examination center

All the classrooms are equipped with LCD Projectors, and have Wi-Fi connectivity. In addition, air-conditioned seminar halls have public address systems for optimum acoustics. College provides special facilities for differently-abled persons, viz., Lifts, Ramp/ Rails, and wheel chairs. College has adequate power backup and UPS facilities. Electrical load of the college supported through two transformers of 200kVA and 125kVA with contract load of 160kVA and 100kVA respectively. Backup is provided through two Kirloskar diesel generators of 200kVA and 380kVA, to ensure un-interrupted power, for academic activities. Personal cabins for Deans, HoDs, Professors and Associate Professors with computer and printer facilities are available. Additional Discussion rooms and Meeting rooms are available for anytime interactions with the students.

Laboratories are adequately equipped and many have been established with industrial collaborations, viz., IBM, Redpine signals, Smartbridge and CDAC at a cost of Rs 53.98 lakhs. **Centre of Excellence with Virtusa** is established in specialized areas to provide domain-specific training to students. All the laboratories are supported through UPS with a total capacity of 680kVA. College also has installed a Solar power plant with a capacity of 250kw which is connected to the grid. Fire extinguishers are placed in each floor of every high-rise building for the safety of students and faculty. All laboratories are provided with required operating manuals for their smooth functioning. Laboratories are also kept open beyond

working hours as per the requirement.

In addition to the central Library which has a rich knowledge resource, of the institution, each department has a separate library with good collection of textbooks. Digital Library resources are accessible on LAN (Intranet) to all students and faculty. Library server has a large collection of learning material.

Computing Equipment

Description	Available Number	Added during the ensuing A/A duration
	Till 2020-21	
Desktop Computers	1818	1547*
Servers	05	01
Laptops	14	02
Printers	84	26
LCD Projectors	48	27
Exclusive Scanners	02	--
Internet	1000 Mbps	952 Mbps
WiFi	Reliance Jio and Stand-alone Devices	Reliance Jio and Stand-alone Devices
Firewall	02	--
Writing Pads for Online classes	46	46

* 1276 old desktop computers were written off

File Description	Document
Upload Any additional information	View Document
Paste link for additional information	View Document

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

Response:

Geethanjali's conviction is, the college years are crucial in students' cognitive, emotional, moral, and social development. Their involvement with peers in various co-curricular and extra-curricular, sports and

cultural activities, influence development of their cognitive skills, identity, self-concept, self-esteem, 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.

Towards the above, college with its sprawling, lush green open-air Auditorium having 3000 seating capacity provides abundant space, facilitates a number of events. 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 blocks for instructional purposes and associated co-curricular, extra-curricular and cultural activities.

Block-I has a 250-seater, Air-conditioned Seminar Hall, used for practicing singing, skits, dancing etc.

The portico of Block II, overlooking an aesthetically laid out garden is the stage for smaller events, namely, Fashion Shows, Dance Competitions, Painting Exhibitions etc.

In Block III, the 100-seat Seminar Hall facilitates conduct of cultural events with limited gathering. The grounds in front of Block-III houses Basketball Court.

Block-IV is furnished with a 400-seat Air-conditioned Seminar Hall, used for performing dance, musical programs, etc.,

Table-tennis, carroms and chess games are facilitated in the games room of Block V. To the right of Block V, houses Cricket net practice sessions.

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

The open lawns facilitate the following:

- College day: VIBGYOR, VIBES
- Yoga
- Regional and National festivals of importance
- Alumni association meet
- Geethanjali family get together
- Football practice

Institution allocates one/two-hour time slots in Timetable encouraging students participation in sports thereby inculcating sporting spirit in them and they understand that winning & losing are part of life. Transportation is arranged for students participating in sports and games beyond working hours to reach their homes. It's the institution'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.

Details of the facility created

Facility	Year of creation	Area in Sqm	Year facility enhanced
Volleyball	2005	162	
Basketball	2005	436	
Throwball	2005	222	
Cricket	2005	3600	2016
Kabaddi	2005	130	2020
Cricket-net practice pitches	2020	74	
Indoor Sports (Carroms, Table-Tennis, Chess etc.)	2005	219	2020
Yoga center	2016	89	
Open-air Auditorium	2005	3310	
Block -1 (II-floor) Air-conditioned Seminar Hall	2006	263	2019 (Modernized)
Auditorium	2019	287	
Air-conditioned			
Block -3 Seminar Hall	2018	137	
Foot Ball Ground	2005	4050	2020

File Description	Document
Upload any additional information	View Document
Geotagged pictures	View Document
Paste link for additional information	View Document

4.1.3 Percentage of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc. (Data for the latest completed academic year)**Response:** 65.75**4.1.3.1 Number of classrooms and seminar halls with ICT facilities**

Response: 48

File Description	Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document
Paste link for additional information	View Document

4.1.4 Average percentage of expenditure for infrastructure augmentation excluding salary during the last five years (INR in Lakhs)**Response:** 24.74**4.1.4.1 Expenditure for infrastructure augmentation, excluding salary year-wise during last five years (INR in lakhs)**

2020-21	2019-20	2018-19	2017-18	2016-17
359.52	485.06	368.29	399.68	401.97

File Description	Document
Upload Details of Expenditure , excluding salary during the last five years	View Document
Upload audited utilization statements	View Document
Link for any additional information	View Document

4.2 Library as a Learning Resource**4.2.1 Library is automated using Integrated Library Management System (ILMS)****Response:**

Geethanjali has a spacious central library in an independent building with an area of 1064 Sqm. spread over two floors. Ground Floor is accommodating OPAC, periodicals, News Papers, digital library, thesis, reprography and special reference. First floor is accommodating circulation, references, periodical back volumes, computer centre etc. It is having a modern infrastructure with a seating capacity of 250 students.

Central Library is fully automated with Integrated Library Management Software, Ez School version 10.0.9.22 and On Edu software used for circulation, procurement, Online Public Access Catalogue (OPAC). All library documents are bar-coded and books are 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

- Name of the ILMS software: Ez School Software and OnEdu Software

- Nature of automation (full or partial): Fully Automated
- Version: Ez School software 10.0.9.22 and OnEdu software
- Year of automation :2009

The College has a Digital Library with 100 systems, connected to the college's intranet, providing services, such as digitalized versions of question papers, syllabus, Articles of National and International standards, e-lectures of faculty of IITs, NPTEL, Textbooks, CD/DVDs, videos of Spoken English, video Films, Britannica Encyclopaedia, books for preparing towards GATE, GRE, TOFEL, CAT etc.

Reference Section has various books including Personality Development Books and other books useful for student professional and career development.

The Library has an Electronic Resource Centre (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.

File Description	Document
Upload any additional information	View Document
Paste Link for additional information	View Document

4.2.2 Institution has access to the following: 1. e-journals 2. e-ShodhSindhu 3. Shodhganga Membership 4. e-books 5. Databases 6. Remote access to e-resources

Response: A. Any 4 or more of the above

File Description	Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document
Details of subscriptions like e-journals, e-books , e-ShodhSindhu, Shodhganga Membership etc	View Document

4.2.3 Average annual expenditure for purchase of books/ e-books and subscription to journals/e-journals during the last five years (INR in Lakhs)

Response: 18.05

4.2.3.1 Annual expenditure of purchase of books/e-books and subscription to journals/e-journals year wise during last five years (INR in Lakhs)

2020-21	2019-20	2018-19	2017-18	2016-17
16.60	20.66	17.94	17.87	17.18

File Description	Document
Details of annual expenditure for purchase of and subscription to journals/e-journals during the last five years	View Document
Audited statements of accounts	View Document
Any additional information	View Document

4.2.4 Percentage per day usage of library by teachers and students (foot falls and login data for online access) during the latest completed academic year

Response: 2.26

4.2.4.1 Number of teachers and students using library per day over last one year

Response: 93

File Description	Document
Details of library usage by teachers and students	View Document
Any additional information	View Document

4.3 IT Infrastructure

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

Response:

Geethanjali considers that in the current information age no organization can survive without extensive use of IT. Towards this, the college has developed an IT policy encompassing all IT/IT enabled services used in the campus, ensuring smooth functioning with adequate security to all users connected to the campus network.

Based on the laboratory and other requirements, every year college allocates budget for updating its IT facilities for procurement of computer systems and other IT related equipment including software.

Every user in the campus is provided access to the campus network as well as internet.

48 LCD projectors have been installed in class rooms and labs with wi-fi/internet connectivity.

All students and faculty are given email accounts with college domain name through GSuite. The college has installed two firewalls in order to protect all its internal systems from cyber attacks.

The college also installed CISCO switches for monitoring traffic in the campus network.

The details of up-dation as follows:

AY 2020-21

1. Procured **320** Lenovo computers of core i5 of 16GB RAM, 1TB HDD.
2. Provided **ICT** Facilities in 06 class rooms
3. **Internet** facility was upgraded from 210 Mbps to 1000 Mbps with two distinct service providers.
4. ACT (Atria Convergence Technologies Ltd) Fibre (500Mbps).
5. D-Vios Communications Pvt Ltd.(500Mbps).

AY 2019-20

1. Provided **ICT** Facilities in 04 class rooms
2. Established Robotics Learning and Development Centre Lab in collaboration with Smart Bridge Educational Services Pvt. Ltd.
3. Procured **256** Acer computers of core i5 of 8GB RAM, 1TB HDD.
4. **Installed Firewall** "Sophos XG Firewall" for exam branch.

AY 2018-19

1. **Installed Firewall** "Sonicwall NSA 3600" for securing campus network.
2. Provided **ICT** Facilities in 09 class rooms
3. Established one more **Computing centre** with 100 systems each.
4. Increased number of computer systems in existing Computing centre from 48 to 100.
5. **Anti-virus:** Quick Heal Seqrte EPS antivirus software (500 Users) has been installed for all the systems with Windows OS.
6. Procured **216** Acer computers of core i3 with 4GB RAM, 1TB HDD and **60** Lenovo Computers of core i3 with 4GB RAM, 1TB HDD.
7. **Internet** facility was upgraded from 132 Mbps to 210 Mbps with two distinct service providers.

AY 2017-18

1. Procured **72** Acer computers of core i5 with 4GB RAM and 1TB HDD, **151** Acer computers of core i3 with 4GB RAM, 1 TB HDD and **170** Assembled computers of Dual Core with 4GB RAM, 1 TB HDD.
2. **Internet** facility was upgraded from 48 Mbps to 132 Mbps with two distinct service providers.

AY 2016-17

1. **Intra-net connectivity** is provided on the campus with 20 Gbps fibre-optic cable over and above the Reliance Jio campus wi-fi for daily usage of 1GB/User.
2. Established IBM Software Lab for Emerging Technologies in collaboration with IBM.
3. Procured **302** Assembled computers of Dual Core with 2GB RAM, 500GB HDD.

Year wise Allocated Budget for IT facilities:

Budget allocated for IT facilities	2016-17	2017-2018	2018-2019	2019-2020	2020-2021
	50,45,018	96,97,574	79,75,787	89,95,799	89,95,799
File Description		Document			
Upload any additional information		View Document			
Paste link for additional information		View Document			

4.3.2 Student - Computer ratio (Data for the latest completed academic year)

Response: 2:1

File Description		Document	
Upload any additional information		View Document	
Student - computer ratio		View Document	

4.3.3 Bandwidth of internet connection in the Institution.

Response: 250 MBPS

File Description		Document	
Details of available bandwidth of internet connection in the Institution		View Document	

4.3.4 Institution has the following Facilities for e-content development

1. Media centre
2. Audio visual centre
3. Lecture Capturing System(LCS)
4. Mixing equipments and softwares for editing

Response: B. 3 of the above

File Description		Document	
Upload Additional information		View Document	
Institutional data in prescribed format		View Document	

4.4 Maintenance of Campus Infrastructure

4.4.1 Average percentage expenditure incurred on maintenance of physical facilities and academic

support facilities excluding salary component during the last five years**Response:** 46.44**4.4.1.1 Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component year wise during the last five years (INR in lakhs)**

2020-21	2019-20	2018-19	2017-18	2016-17
841.97	837.98	786.41	791.57	588.91

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

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

The Maintenance Cell of the college ensures proper functioning of all civil, electrical, water, sewage, environment, and other facilities through frequent inspections and need-based maintenance works. 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 the Registrar/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 based on the need and review the requirements to chalk out further action to be taken. 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. Preventive maintenance of the equipment is a regular practice in all laboratories apart from breakdown maintenance. Gardeners and janitors conduct regular cleaning of the campus premises and restrooms twice a day.

The regular maintenance of all the seminar halls of the institution, 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 institution, furniture available in the classroom, faculty/staff rooms are regularly monitored on a fortnightly basis for maintenance.

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 a central computing facility located in the library building, which is also used for browsing and accessing electronic content of learning resources.

The institution 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.

File Description	Document
Paste link for additional information	View Document

Criterion 5 - Student Support and Progression

5.1 Student Support

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

Response: 50.53

5.1.1.1 Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

2020-21	2019-20	2018-19	2017-18	2016-17
1969	1926	1831	1674	1591

File Description	Document
upload self attested letter with the list of students sanctioned scholarships	View Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document
Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years	View Document

5.1.2 Average percentage of students benefited by scholarships, freeships, etc. provided by the institution and non-government agencies during the last five years

Response: 13.33

5.1.2.1 Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

2020-21	2019-20	2018-19	2017-18	2016-17
434	211	815	874	59

File Description	Document
Upload any additional information	View Document
Number of students benefited by scholarships and freships besides government schemes in last 5 years	View Document
Institutional data in prescribed format	View Document

5.1.3 Following Capacity development and skills enhancement activities are organised for improving students capability 1. Soft skills 2. Language and communication skills 3. Life skills (Yoga, physical fitness, health and hygiene) 4. Awareness of trends in technology

Response: A. All of the above

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

5.1.4 Average percentage of students benefited by career counseling and guidance for competitive examinations as offered by the Institution during the last five years.

Response: 29.84

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

2020-21	2019-20	2018-19	2017-18	2016-17
642	1253	687	1231	1386

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

5.1.5 The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases 1. Implementation of guidelines of statutory/regulatory bodies

2. Organisation wide awareness and undertakings on policies with zero tolerance
3. Mechanisms for submission of online/offline students' grievances
4. Timely redressal of the grievances through appropriate committees

Response: A. All of the above

File Description	Document
Upload any additional information	View Document
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	View Document
Details of student grievances including sexual harassment and ragging cases	View Document

5.2 Student Progression

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

Response: 65.64

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

2020-21	2019-20	2018-19	2017-18	2016-17
553	478	458	390	249

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

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

Response: 6.37

5.2.2.1 Number of outgoing student progressing to higher education.

Response: 59

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

5.2.3 Average percentage of students qualifying in state/national/ international level examinations during the last five years (eg: IIT-JAM/CLAT/ NET/SLET/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations, etc.)

Response: 97.36

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

2020-21	2019-20	2018-19	2017-18	2016-17
105	78	28	30	26

5.2.3.2 Number of students appearing in state/ national/ international level examinations (eg: IIT/JAM/ NET / SLET/ GATE/ GMAT/CAT,GRE/ TOEFL/ Civil Services/ State government examinations) year-wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
121	78	28	30	26

File Description	Document
Upload supporting data for student/alumni	View Document
Number of students qualifying in state/ national/ international level examinations during the last five years	View Document
Any additional information	View Document

5.3 Student Participation and Activities

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

Response: 532

5.3.1.1 Number of awards/medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) year - wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
96	173	88	121	54

File Description	Document
Number of awards/medals for outstanding performance in sports/ cultural activities at inter-university / state / national / international level during the last five years	View Document
e-copies of award letters and certificates	View Document
Any additional information	View Document

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

Response:

Geethanjali has a Student Council (SC) comprising nine members. In addition, various bodies constituted by the College also has student representatives. The SC under aegis of Dean, students affairs plans and organizes various co-curricular and extra-curricular activities of the college in association with the college academic committee. Towards this end, various designated committees, viz., Organizing committee, Reception committee, Hospitality committee, Technical Events committee, Campaigning/Public Relations committee, Discipline committee, Cultural programmes committee, Sports committee, Prize Distribution committee, Magazine committee and such others are involved in the organization of Orientation programmes, Fresher's Day, *Alphamatica*, *Bhaswara*, *Vaisheshika*, *Vibgyor* and *Vibes*. In each committee, at least two student representatives/volunteers attend meetings as and when called for. In addition, Geethanjali celebrates regional, national and international commemoration days and festivals wherein, SC members are involved in the smooth conduct of the events.

SC also contributes to the 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 the 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, Computer Society of India (CSI), Institute of Electrical and Electronic Engineers (IEEE), Institute of Electronics and Telecommunication Engineering (IETE), Indian Society for Technical Education (ISTE) and Society for Automotive Engineering (SAE).

The SC 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 SC provides necessary help by reaching out appropriate tutorials to the students studying in nearby schools. It also organizes awareness programmes on health, education and environment. In association with NGOs, the SC facilitates conduct of cataract surgeries, organizes blood donation, health/dental camps and distributes medicines. As part of environment campaign, Handmade paper bags were made and distributed, making them aware of the hazards of plastic usage and its consequent disastrous effects on environment. Towards the promotion of Green revolution, every year, SC organizes tree plantation programmes in the nearby villages.

Student representatives are also nominated on the anti-ragging committee, grievance redressal cell and women protection cell. The Entrepreneurship development cell also has SC members with a faculty advisor, to organize various events under the National Entrepreneurship Network (NEN).

IQAC has a representative each from students and alumni.

BoS of each department consists of Alumni members.

Class Review Committees also have student representatives for obtaining feedback on the Teaching-Learning process.

On the whole, the Students Council is a dynamic Body that contributes a great deal to the development of students and institution alike.

File Description	Document
Upload any additional information	View Document
Paste link for Additional Information	View Document

5.3.3 Average number of sports and cultural events / competitions organised by the institution per year

Response: 64.2

5.3.3.1 Number of sports and cultural events / competitions organised by the institution year - wise during the last five years.

2020-21	2019-20	2018-19	2017-18	2016-17
74	67	66	65	49

File Description	Document
Upload any additional information	View Document
Report of the event	View Document
Number of sports and cultural events / competitions organised per year	View Document

5.4 Alumni Engagement

5.4.1 The Alumni Association / Chapters (registered and functional) contributes significantly to the development of the institution through financial and other support services.

Response:

- Alumni members are made members of Boards of Studies of various departments. They contribute in the curriculum design. They examine the current curriculum and give suggestions vis-a-vis the industry-institution interface 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 provide 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 in various industries connect the placement cell of the college to their respective industries, thereby, facilitate the college with opportunities for internships and 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.
- Alumni of the college have donated certain resources/facilities to college for students use.

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

5.4.2 Alumni financial contribution during the last five years (in INR).**Response:** E. <2 Lakhs

NAAC

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

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

Response:

Geethanjali has an Organizational Structure ensuring good governance, reflective of both, an Effective Leadership as also in tune with the Institutional Vision and Mission.

Vision:

Geethanjali visualizes dissemination of knowledge and skills to students, who would eventually contribute to the wellbeing 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.

College's vision envisages that its graduating students contribute to national development and to the well-being of the global community.

The mission is to produce graduates possessing sound knowledge in basic sciences and technical skills, human values, a strong zeal to serve community, leading to realization of the institution's vision, which calls for good governance, requiring establishment of structures and processes, designed to ensure accountability, transparency, responsiveness, equity, empowerment, and participation. In line with these, and as per UGC guidelines for autonomous colleges, following statutory committees, namely, Governing Body, Academic Council, Boards of Studies, Finance Committee, and Women Protection Cell (now renamed as Internal Compliance Committee), are constituted, ensuring participation of teachers in decision making, proper management of academic, financial, and administrative matters of the college.

Further, several non-statutory committees comprising faculty, staff and students are also operative, assisting in the overall governance of the college. College promotes a culture of decentralized and participative management, extending down to Assistant Professor.

The Principal, as head of the institution is vested with overall responsibility to plan, organize, and control all activities, empowering Deans, Heads of Departments (HoDs), committees and in-charges of sections, carrying out institution's day to day functions by delegating authority. Duties and responsibilities of Principal and other personnel are well laid and spelt out clearly in "Roles and Responsibilities" handbook of the institution.

College organized its structure into departments/sections, and groups/divisions within departments. To

assist Principal, Deans and HoDs, in the performance of their functions, many committees, namely, Planning and Monitoring Board, Grievance Redressal Committee, Admissions Committee, Examinations Committee, Student Welfare Committee, Anti-ragging committee, Library Committee, Extra-curricular activities Committee, Academic Audit Committee etc. are formed at institutional and department level, comprising faculty/staff at all levels. Committees are empowered to deliberate independently, investigate, and recommend actions on various issues, referred to them.

Institution's perspective (Strategic) plan is developed by the Planning and Monitoring Board, in consultation with the Governing Body. Strategic plan is aimed at achieving short, medium and long-term goals of the college, aligning with its Vision and Mission. The strategic plan is translated into operational goals and plans for departments, facilitating achievement of targets giving a detail of time schedules along with resources required over the plan period.

All the above clearly ensure participative management at every level of the institution facilitating development of potential leaders in the college, a clear reflection and demonstration of effective leadership of college.

File Description	Document
Any additional information	View Document

6.1.2 The effective leadership is reflected in various institutional practices such as decentralization and participative management.

Response:

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 Institution's quality assurance processes for assessment in courses along with Academic Regulations, are implemented;
2. 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
3. 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.
4. 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.

File Description	Document
Any additional information	View Document
Link for additional information	View Document
Link for strategic plan and deployment documents on the website	View Document

6.2 Strategy Development and Deployment

6.2.1 The institutional Strategic / Perspective plan is effectively deployed

Response:

A progressive institution is always one that has its Perspective Strategic Plan effectively designed, and deployed. Geethanjali has put in place a feasible Institutional Perspective Strategic Plan and out of which one academic activity - **Problem/Project Based Learning (PBL)** is presented below as an example:

Geethanjali strongly believes in what Benjamin Franklin has said, **“Tell me, I forget; teach me I may remember; involve me, I learn”**. Our conviction is that perceivable learning happens only by doing, which is etched for eternity. Since personal experiences are far more interesting, enjoyable and involved, they are long-lasting and of utmost satisfaction. Geethanjali visualized that Project-Based-Learning is a significant feature of Education 4.0, to make the students get deeply involved in their learning. This significant ‘learning while doing’ is invaluable in providing economically-feasible solutions to imminent societal problems leading to and thereby ensuring environmentally-sustainable development.

Keeping this in view, Geethanjali deputed 16 teachers from various departments to KLE Technological University, Hubli for a period of three days in November 2019 facilitating them towards PBL. Thereafter, Geethanjali entered into an MoU with the **Viswanekathan Group of Institutions, Khalapur, Maharashtra**, for training faculty at Geethanjali on “PBL”.

Step I: Introductory workshop on PBL was conducted during January 04-05, 2020. Fifty-five faculty drawn from different departments attended were trained to get sensitized in the identification of problems for a given course. Faculty prepared a problem canvas categorizing different aspects of the identified problem and presented their work.

Step II: Course level PBL orientation Workshop, was conducted for same faculty during January 24-26, 2020. Aspects of implementation of PBL for a particular course were introduced; faculty of each department identified two courses for PBL implementation, learnt the concept of storyboard for a course. Course-level PBL canvas helped faculty to identify and create a clothes-line model for a particular problem.

Subsequently, resource persons interacted with students of first/second/third year, oriented them to adapt PBL into their learning and enabled them to be future ready.

Step III: Course Level PBL (CLPBL) implementation

In continuation to the first two PBL workshops, all departments identified the courses and the respective faculty for implementation of PBL. During March 04-05, 2020, resource persons from Vishwaniketan interacted with our faculty, CLPBL presentations were reviewed, feedbacks were received and incorporated into action plans for implementing the same. Resource persons also reviewed final year projects for business viability through bootcamp, had another interaction with students to orient them towards PBL.

OUTCOME: Tutorial on IEEE HYDCON on PBL and Course level PBL

The IEEE Hyderabad section organized a conference “Industry 4.0”, with emphasis on PBL as the

educational approach for students to be industry-ready, conducted tutorial session on PBL for the participants, and our faculty demonstrated our strategically developed CLPBL as a feasible example for implementation, and this was highly appreciated.

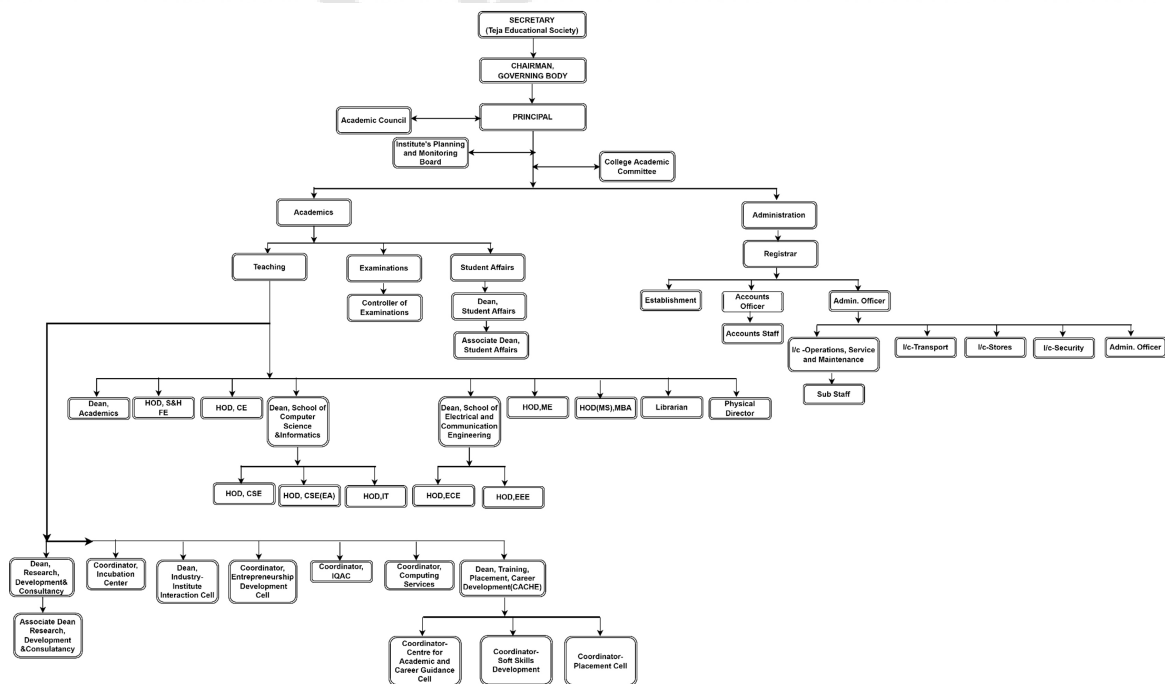
This experience and strategic action plan have rendered Geethanjali to successfully implement PBL, in eighteen courses across various departments culminating in the development of critical thinking and interpersonal skills in students.

File Description	Document
Link for Strategic Plan and deployment documents on the website	View Document
Link for additional information	View Document

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

Response:

Geethanjali’s organogram depicts its organizational structure



Governing Body, the apex statutory body, monitors the reflection of the institution’s Vision, Mission and quality policy in all activities of the HEI, gives direction to various constituents and monitors its performance.

The institution is organized into Academic, Examinations and Administrative units with Principal as Head of the Institution. Other statutory bodies of the college include, Academic Council (AC), Boards of Studies (BoS), and Finance committee, while, non-statutory committees, Planning & Monitoring Board, Library,

Examinations, Grievance Redressal, IQAC, Internal compliance committee (Women Protection Cell), Anti-Ragging, and Canteen, constituted as per the norms of the Autonomous status of the college.

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

The Registrar, along with Dean, Academic and college academic committee assists Principal in administering and leading the college within the policy framework developed by AC.

Controller of Examinations coordinates with external examiners, affiliating university officials and with all concerned in the college, ensures smooth conduct of all examinations evaluation and timely declaration of results.

Dean, RD&C formulates research and consultancy policies of the institution, processes research and patent proposals submitted by faculty, recommends internal seed money and other assistance for projects, if any, and identifies areas/institutions for collaborative purposes and rendering consultancy services.

Dean, Students Affairs facilitates/coordinates student council formation, maintains discipline, supervises anti-ragging committee and arranges to conduct extracurricular activities.

Coordinator, Industry Institute Interaction, develops industry linkage, facilitates MoUs.

Coordinator, computing services, oversees and facilitates IT infrastructure requirements, arranges for smooth conduct of IT activities of the institution.

Coordinator, IQAC, initiates and administers quality initiatives of the college. Arranges conduct of internal/external academic and administrative audit.

Dean, TPCP, oversees/administers career guidance and development programs facilitating students acquire employability and career progression skills.

Coordinator, EDC, conducts entrepreneurial development programs., promoting entrepreneurship.

Coordinator, IC, nurtures seed of creativity and innovation, fostering a culture of product development through prototypes, resulting in entrepreneurship through a start-up, inviting and involving venture capitalists.

Dean, School of Computer Science and Informatics, oversees smooth functioning of CSE/IT/ CSE (Emerging Areas) departments ensuring optimal utilization of their resources.

Dean, School of Electrical and Communication Engineering, oversees smooth functioning of ECE and EEE departments, ensuring development of quality initiative measures for improving employability of students in core sectors.

HoD, administers smooth conduct of academic and administrative activities of the department. In association with senior faculty members promotes scholarly activities of faculty and students.

AO, assists Registrar in all administrative activities including operations, maintenance of facilities, safety

and security of all. Also maintains AICTE/UGC/Government correspondence.

Accounts Officer, in association with Registrar, assists Principal in the preparation of budget and maintaining records of all accounts, and facilitating audit of the same.

Establishment section, maintains personal files of all employees of the college updates their leave status from time to time.

File Description	Document
Any additional information	View Document
Link to Organogram of the Institution webpage	View Document
Link for additional information	View Document

6.2.3 Implementation of e-governance in areas of operation

1. Administration
2. Finance and Accounts
3. Student Admission and Support
4. Examination

Response: A. All of the above

File Description	Document
Screen shots of user interfaces	View Document
Institutional data in prescribed format	View Document
ERP (Enterprise Resource Planning) Document	View Document
Link for additional information	View Document

6.3 Faculty Empowerment Strategies

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

Response:

Geethanjali is more than sensitive to reaching out welfare measures to both, our Faculty and the administrative/support Staff. The following welfare schemes/benefits are offered by the institution:

- EPF contribution by Management to all faculty and staff members
- Fee concession provided to children of staff members who are studying in Geethanjali

- Financial incentives are given for faculty for research publications and Books/Book chapters
- Full financial support for filing patents
- Free Medical facility at the institution
- Free transport to administrative staff.
- Vehicles, and bus passes to Messengers.
- Public transport bus passes to all drivers.
- 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.
- Special leave to staff on the occasion of their marriage.
- Health Awareness camps within campus and Free Medical Check-ups.
- Uniforms, washing allowance for Attendants, Ayahs and Drivers.
- Paid leave @ one day/Week as incentive to faculty pursuing part-time Ph.D and conducting consultancy.
- Study/sabbatical leave for faculty pursuing full-time Ph.D.
- Paid leave for faculty attending MOOCs certification examination and reimbursement of examination fee
- Paid leave with registration fee to attend FDPs/Conferences
- Supporting faculty pursuing research through Creation of required facilities as per their request.
- ESI benefit to attenders, Ayahs, drivers, gardeners, and admin assistants.
- Salary advances for faculty and staff in times of need.

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

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

Response: 27.83

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

2020-21	2019-20	2018-19	2017-18	2016-17
31	72	74	95	61

File Description	Document
Institutional data in prescribed format	View Document
Link for additional information	View Document

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

Response: 10.8

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

2020-21	2019-20	2018-19	2017-18	2016-17
12	9	15	12	6

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

6.3.4 Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course).

Response: 36.95

6.3.4.1 Total number of teachers attending professional development Programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes year wise during last five years

2020-21	2019-20	2018-19	2017-18	2016-17
126	128	102	48	37

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

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Response:

A: Internal financial audit: The college constitutes an internal committee for conducting verification of assets/capital equipment as well as financial audit. The committee checks financial reporting compliance with policies as well as compliance with respect to legal aspects including applicability of the trust/society. The internal audit also verifies the achievement of operational goals and objectives, safe guarding of assets, effective and efficient use of resources.

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 the competent authority and such 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.

B: External financial audit: Geethanjali arranges to conduct external financial audit every year by an external auditing agency named Haribabu and Associates, a registered financial auditing company, located in Hyderabad. The same auditing agency has been conducting external audit since the inception of our college, i.e., 2005. The auditors verify the financial statements and books of accounts to certify the truth and fairness of the financial position and operating system prevalent. The auditors employ internal check by verifying arithmetical accuracy of books of accounts, authentication and validation of transaction and also checking the proper distinction between capital and revenue nature of transactions. Except for transactions involving petty amounts, all other payments are made by way of issuing account payee cheques, demand drafts and using the fund transfer facility of banks such as NEFT/RTGS, to maintain transparency and to minimize errors may likely to occur due to cash transactions. This makes the job of our auditor simple and more easy. The audit observations submitted to the management by the audit company are examined carefully and corrective actions taken, if any, wherever required. At the end of every financial year, IT returns are filed to income tax department. These include, income and expenditure statements audited by a chartered accountant.

All the audit reports have been found to be in order. However, prior to external audit an internal audit is conducted through a Chartered Accountant (CA). In case of any errors identified by CA, they will be rectified by the internal accounts staff as per the suggestion by the CA. These minor errors, if and when crept in, due to any oversight by accounting personnel, is verified and rectified, resulting in strengthening of the financial accounting and budgetary control systems.

File Description	Document
Any additional information	View Document

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

Response: 10.9

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

2020-21	2019-20	2018-19	2017-18	2016-17
2.3	3.4	2.9	1.8	0.5

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Annual statements of accounts	View Document
Link for additional information	View Document

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

Response:

Resource Mobilization Policy and Procedures

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

Internal: Tuition fee, NBA fee, Training fee, transport fee and other miscellaneous fees collected from students.

External:

Name of the Head	Funding Agency	2016-17 INR	2017-18 INR	2018-19 INR
FDP	AICTE	3,50,000	7,00,000	--
Conferences/Seminars/STTPs	AICTE, DRDO	--	1,00,000	--

Workshops		--			
MODROBS	AICTE	--	--	8,23,000	
NSS/UnnatBharath	JNTUH, IIT Delhi	49,400	22,000	22,000	
Projects	DRDO, MTRDC, JNTUH TEQIP_III	--	45,81,000	8,07,300	
Skill and Personality development program	AICTE			9,12,000 (SC/ST)	
Total		3,99,400	54,03,000	25,64,300	

Procedure: The accounts section of the college prepares, month-wise cash flow statements, at least two months in advance. The cash outflow statement is based on institutional budget estimates and additional inputs from 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 align 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	Document
Link for additional information	View Document

6.5 Internal Quality Assurance System

6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes visible in terms of – Incremental improvements made for the preceding five years with regard to quality (in case of first cycle) Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives (second and subsequent cycles)

Response:

Internal Quality Assurance Cell (IQAC) of Geethanjali has been in operation since 2012, initiating and conducting several activities to improve quality of both academic and administrative functions, in order to provide quality educational and service and experience for students, faculty and staff. During the last 5 years it has had 20 meetings and 80 resolutions. Among the practices initiated by IQAC, the following two have contributed to the quality enhancement.

Practice No. 1: Promoting research culture among faculty leading to increase in number and quality of publications/Patents:

IQAC in association with the R&D Cell, has been organizing FDPs/Seminars/Webinars/workshops on research methodology, IPR, creativity and innovation (during the last five years, 12 events were held), as well as encouraging faculty to attend such events conducted elsewhere (all put together 129 faculty participated). College also has been giving one day off per week for faculty to work on their PhD, based on the progress of their work.

Senior and experienced faculty with doctorate degree discuss with junior faculty, on the importance of obtaining doctorate for their career development, AICTE and UGC mandates for PhD degree, and subject-related research ideas and methodologies.

As a result of these initiatives of IQAC, during the last five years, 71 faculty members have registered for part time PhD. In addition, 8 more have registered for full time PhD. Faculty pursuing PhD as well as others about to register for PhD, have been working actively, on identified areas of research and this has paved way for an increase in the number of publications from 321 to 734 and Patents published from zero to 55. Eight teachers have obtained Ph.D degrees while working in the college.

Practice No. 2: Reforms in the Midterm examination question papers and assessment as per the Blooms Taxonomy levels:

Towards this, IQAC has initiated a process to assess the quality of midterm examination question papers and made significant improvements in the assessment of students aligning with the teaching-learning process and outcomes. Each department constituted a committee comprising the HoD/Program Coordinator, three senior faculty, course coordinator and one senior faculty from outside the department to look at various parameters in order to ensure that balanced question papers were prepared facilitating appropriate measurement of outcomes. IQAC designed a structured questionnaire in the form of a checklist (attached as additional document), and oriented faculty on the preparation of question paper and assess students' performance in fitment to the levels of Bloom's Taxonomy. Guidelines were also given in regard to these levels for each of the four years of the BTech program as well as the PG programs. This has improved the quality of question papers and faculty are well acquainted on the appropriate implementation of OBE with usage of appropriate verbs vis-à-vis Bloom's Taxonomy levels. This entire process has enabled better assessment of course outcomes, resulting in improvement of program outcomes, which is perceivable in the performance of graduates pursuing higher education and securing placements with higher pay packages.

File Description	Document
Any additional information	View Document

6.5.2 The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities (For first cycle - Incremental improvements made for the preceding five years with regard to quality For second and subsequent cycles - Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives)

Response:

A detailed academic calendar that includes all academic activities is prepared much before commencement of each semester. Course allocation is done based on the expertise of the faculty. Timetables are prepared with dedicated time slots for regular class work/tutorials/remedial classes/seminars/mentoring/Training and Placement activities, and such others.

Faculty prepare Teaching plan indicating topics with correlation to Course Outcomes (COs), Program Outcomes (POs) and Program Specific Outcomes (PSOs).

All faculty submit Course files detailing various aspects including Lesson and Laboratory plan for conduct of theory and laboratory sessions in a well-defined format as specified by IQAC.

I. Implementation of Teaching-Learning reforms as initiated by the IQAC

Geethanjali's conviction is that the course purpose induces students to deeply involve in their learning, which would lead to quality educational experiences, that would pave way in their professional career development. Towards this, IQAC prepared a detailed questionnaire for improving the quality of course file, giving utmost importance about the purpose of the course.

Accordingly, IQAC has ensured that the following are described in course files:

- The role course plays within the Program, its uniqueness vis-à-vis other courses.
- Essential knowledge/skills student gains from the course that would help to perform well in future classes/Higher Education progression/Jobs.
- Prerequisite(s) for the course and specific knowledge/skills students need to know for their future career progression.
- Unique contributions of the course to students' learning experience there by enriching the quality of the program, in particular, how student's attitudes and higher-order thinking skills are developed.

In the laboratory course, scientific enquiry and problem-solving skills are developed, which include:

- Defining a problem
- Formulating hypotheses
- Designing, conducting experiments
- Collecting, interpreting data
- Testing hypotheses, if any,
- Drawing inferences from conclusions
- Communicating processes, outcomes and their implications

Prepared lesson plans are discussed with other faculty teaching the same course during Course Coordinator's meetings. Curriculum is enriched with guest lectures, industrial visits and Internships. Students attendance and performance, continuously monitored by class adviser, mentor and faculty teaching various courses and students are apprised of the same during lectures, lab sessions, mentored and cautioned, whenever necessary.

IQAC verifies the above through minutes of meetings of:

- CRC, Course Coordinator with faculty, Mentor-Mentee.
- Quality of Guest Lectures etc.

A continuous internal examination and evaluation system is 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.

Parents are informed about their ward's attendance on a daily basis and performance in examinations.

Student feedback on TLP is taken twice a Semester, one immediately after three weeks of commencement of semester, final, just before conclusion of semester by IQAC through a structured questionnaire. It is reviewed by HoD, Dean, Academics and Principal, communicated to faculty. Faculty member with <70% feedback is counseled for improvement. On an average, 35-40 faculty have been mentored in each semester.

II. Institutional review - Internal and External Academic and Administrative Audit

Geethanjali strongly believes 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. Institution also conduct audit of our programs at the end of each academic year to sustain quality.

Towards this, our IQAC has designed a meticulously planned framework detailing various processes starting from course allocation, preparing course file, teaching 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:

A. Internal Academic Audit

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 various academic activities during department meetings, guides faculty members accordingly.

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 from cross/inter-departmental to evaluate efficacy of institution'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, or else, departments are informed to take appropriate corrective measures.

B. External Academic 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	Document
Any additional information	View Document

6.5.3 Quality assurance initiatives of the institution include:

- 1.Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analysed and used for improvements**
- 2.Collaborative quality initiatives with other institution(s)**
- 3.Participation in NIRF**
- 4.Any other quality audit recognized by state, national or international agencies (ISO Certification)**

Response: All of the above

File Description	Document
Upload e-copies of the accreditations and certifications	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Paste web link of Annual reports of Institution	View Document
Link for additional information	View Document

NAAC

Criterion 7 - 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 last five years.

Response:

Geethanjali has zero tolerance to any kind of discrimination and follows an inclusive policy in all its endeavors, without any bias to gender, caste, religion, language and any such others.

A. Activities to promote Gender Equity and gender sensitization:

The Institution has defined procedures for promoting gender equity and sensitization both, in curricular, co-curricular and extra-curricular activities. Towards this, annually, several programs/activities are conducted:

1. Curricular and Co-curricular activities:

a. During their entire programme, students are sensitized to the behavioral nuances of working with the opposite gender. Girl students are empowered by taking up additional responsibilities as class representatives as well as executive members in the Student Council. About 4000 students including girls and boys have been sensitized on gender issues through these activities and are advised to maintain a healthy relationship so that women are not embarrassed at any point of time. Further, students are also counseled not to discuss topics that may have gender bias leading to any untoward/unpleasant situations.

b. 'Gender Sensitization' has been introduced as a mandatory audit course to all undergraduate students and is a part of our curriculum. Interactive sessions of this course spreading over an entire semester, amply emphasize the theme and promote the goal. As part of our academic requirement and practice, being a co-educational institution, students of both the genders participate in various curricular, namely, laboratory work, internships, mini and major projects, technical and project seminar, wherein, they cooperatively and collaboratively work together. The institution treats their participation with due consideration for gender equity and equality.

2. Extra-curricular 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 facilitates them in understanding the sensitivities of working together and without any bias to the opposite gender.

3. Activities under other gender-specific bodies:

a. **IEEE Women in Engineering (WiE)**, an affinity group established in the college in 2016. Through WiE, college is promoting Gender equity and sensitization, and has organized twelve (12) awareness programs since 2016-17.

b. **Women Protection Cell (WPC)**: WPC, a UGC mandate, has been in existence since 2015. WPC

comprises twelve faculty members with a Presiding Officer, one external member and ten members, with representation from all departments of college and is reconstituted every two years. WPC periodically meets and reviews the complaints received from Lady faculty and students (if any), in particular, cases involving harassment of women and addresses such cases, if any, as per statutory norms. WPC also conducts awareness workshops on preventive measures and has conducted sixteen (16) programs including eight (08) on preventive measures since 2016-17.

c. Safety and Security of women: Women security personnel are recruited to support women faculty, staff and students. All prominent locations of the campus are under CCTV surveillance. Women have been provided with separate waiting rooms/sick rooms and telephone numbers of **SHE-TEAMS of Hyderabad police**, supporting them to instant/necessary help as and when needed.

File Description	Document
Annual gender sensitization action plan	View Document
Specific facilities provided for women in terms of: a.Safety and security b.Counselling c.Common Rooms d. Day care center for young children e. Any other relevant information	View Document

7.1.2 The Institution has facilities for alternate sources of energy and energy conservation measures

- 1.Solar energy
- 2.Biogas plant
- 3.Wheeling to the Grid
- 4.Sensor-based energy conservation
- 5.Use of LED bulbs/ power efficient equipment

Response: A. 4 or All of the above

File Description	Document
Geotagged Photographs	View Document
Any other relevant information	View Document

7.1.3 Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 500 words)

- Solid waste management
- Liquid waste management
- Biomedical waste management
- E-waste management
- Waste recycling system
- Hazardous chemicals and radioactive waste management

Response:

Geethanjali college of Engineering & Technology (GCET) believes in “Let’s go green and keep our campus clean”. GCET’s essential operations are highly sustainable and its efficient waste management processes ensure that generation of waste is kept to a minimum. Environment consciousness is embodied in the heart of the College by activities such as tree plantations from NSS/ NCC/Environmental Club volunteers every year. It not only maintains the aesthetics of the college but also promotes the vital motive of the management to provide a friendly atmosphere for the academic and non-academic activity.

GCET is aware of and sensitive to segregating waste and proper disposal as per the mandated norms.

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

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

There is no generation of **Hazardous chemicals and radioactive waste**.

Sanitary Incinerators are installed inside the campus to promote hygiene.

The institution’s practices with regard to storage and disposal of waste are described below:

Solid Waste Management:

The solid waste generated in the institution includes rubber tyres, metal scrap, paper, old newspapers, used papers and journal files: These are segregated, stored separately and given away to scrap dealers/vendors/recyclers. Apart from dry solid waste, food waste from canteens is collected by authorized agents for use as cattle feed. All the waste is disposed off in a safe and eco-friendly manner. Color coded waste collection Bins are placed on the college premises to collect solid waste.

Liquid Waste Management:

The liquid waste generated in the institution includes laboratory, and canteen effluent wastes. These are drained to a pit in distant open land. The laboratory waste water does not contain any hazardous chemicals.

E-Waste Management: Electronic waste as created when an electronic product is discarded after the end of its useful life, which includes obsolete electronic devices, such as computer systems, servers, monitors, compact discs (CDs), printers, scanners, copiers, calculators, fax machines, battery cells etc. is handed over to an agency. The institution has adopted the following with the objective of creating an eco-friendly environment in the campus:

1. Major E-waste such as written off computers, CRTs, printers are to be collected for safe disposal.
2. All the miscellaneous e-waste such as CDs, batteries, PCBs, mice, key boards, printer cartridges are also collected for safe disposal.
3. Re-filling of printer cartridges is carried out in a safe manner.
4. UPS batteries are periodically inspected and recharged or repaired as necessary. Once they are dead, they are collected for safe disposal.

Waste Recycling

Old newspapers, used papers, journal files are collected by an agency which in turn recycles the waste paper for further use.

File Description	Document
Relevant documents like agreements/MoUs with Government and other approved agencies	View Document
Geotagged photographs of the facilities	View Document
Geotagged photographs of the facilities	View Document
Any other relevant information	View Document

7.1.4 Water conservation facilities available in the Institution:

1. Rain water harvesting
2. Borewell /Open well recharge
3. Construction of tanks and bunds
4. Waste water recycling
5. Maintenance of water bodies and distribution system in the campus

Response: B. 3 of the above

File Description	Document
Geotagged photographs / videos of the facilities	View Document
Any other relevant information	View Document

7.1.5 Green campus initiatives include:

1. Restricted entry of automobiles
2. Use of Bicycles/ Battery powered vehicles
3. Pedestrian Friendly pathways
4. Ban on use of Plastic
5. Landscaping with trees and plants

Response: A. Any 4 or All of the above

File Description	Document
Various policy documents / decisions circulated for implementation	View Document
Geotagged photos / videos of the facilities	View Document
Any other relevant documents	View Document

7.1.6 Quality audits on environment and energy are regularly undertaken by the Institution and any awards received for such green campus initiatives:

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

Response: A. Any 4 or all of the above

File Description	Document
Reports on environment and energy audits submitted by the auditing agency	View Document
Certification by the auditing agency	View Document
Certificates of the awards received	View Document
Any other relevant information	View Document

7.1.7 The Institution has disabled-friendly, barrier free environment

- 1.Built environment with ramps/lifts for easy access to classrooms.**
- 2.Divyangjan friendly washrooms**
- 3.Signage including tactile path, lights, display boards and signposts**
- 4.Assistive technology and facilities for Divyangjan accessible website, screen-reading software, mechanized equipment**
- 5.Provision for enquiry and information : Human assistance, reader, scribe, soft copies of reading material, screen reading**

Response: A. Any 4 or all of the above

File Description	Document
Policy documents and information brochures on the support to be provided	View Document
Geotagged photographs / videos of the facilities	View Document
Details of the Software procured for providing the assistance	View Document
Any other relevant information	View Document

7.1.8 Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 500 words).

Response:

It is our conviction that curricular, co-curricular and extra-curricular (Games, sports, and cultural) activities play an important role in the emotional, cognitive and social development of the student community. Towards this end, Geethanjali organizes several such events to promote various skills among students, awareness and importance of empathy-oriented compassion, cultural, regional, religious, linguistic and communal tolerance needed for practicing in a highly pluralistic society which ultimately has widespread socio-economic ramifications. Despite the individual characteristics and reservations that students may have, such events organized by the institution, strengthen unity among students and help in developing a spirit of consensus and cooperation through dialogue and team-activities.

Geethanjali has established several student clubs which have been promoting various activities to sensitize and play a vital role in promoting and building an inclusive environment in the institution.

Fine arts club of Geethanjali conducts Music competitions (both vocal and instrumental) for students. Music lovers among students with proficiency in Western, Classical (Carnatic and Hindustani) participate in these events, which facilitate harmony among students, respecting each other, also curates their associated culture. Students play skits and enact dramas with various themes such as mythological, historical and social. These activities conducted in different languages, and themes have been facilitating students to be aware of Indian, Western and other mythologies, history and socio-economic aspects, thereby developing a sense of tolerance towards various cultures across the globe.

Students of **Photography club** of Geethanjali exhibit their skills and talent displaying photos they have shot, depicting not only nature, but also the socio-economic divide between rural and urban India, as well as the huge chasm among people living in under-developed and developed countries. Such photographs and interactions facilitate students to enhance their emotional quotient and compassion leading to self-actualization.

Mandatory courses in the curriculum, namely, Environmental science, Human Values and Professional Ethics (HVPE) help students in understanding the importance of environmental awareness, a deep rooted commiseration towards underprivileged sections of society leading to strong empathy facilitating sustainable development.

Environmental club of the institution has been acting as a catalyst in furthering and promoting protection of environment, leading to peace, harmony and prosperity in the immediate society.

Traditional days are observed in celebration of India's diverse culture, wherein, faculty, staff and students wear traditional attire, symbolizing their home state, promote awareness of various cultures prevalent in Indian society and thus promote tolerance, inclusivity and cooperative living.

Through its **NSS unit**, Geethanjali 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 faculty, staff and students. College also conducts several games, sports, debates, essay writing competitions on important National days, signifying their importance, wherein students participate in large numbers.

Through all these activities, students are nurtured to exhibit tolerance and harmony towards various

cultural, regional, linguistic, and communal diversities, and develop *esprit de corps* with compassion on socio-economic factors for a harmonious, peaceful and prosperous society, paving way for sustainable development.

File Description	Document
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	View Document

7.1.9 Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens (within 500 words).

Response:

Geethanjali strongly believes in Maslow's theory of motivation, which at its highest level of pyramid specifies "Self-Actualization", that the purpose of human existence is to serve mankind. Towards this, we consider education in general, higher education in particular, should facilitate realization of human potential by making students, teachers, and higher educational administrators, conscious of human values and societal development, so as to transform them into future ready global citizens.

Geethanjali involves students in activities pertaining to strengthening core values, making them aware of their rights, duties and responsibilities and help them in becoming responsible citizens.

Values:

Towards this, Geethanjali has been organizing blood donation (611 units of Blood), free vaccination and medical camps through student volunteers, giving infrastructural support for the physically challenged (through ramps, lifts, large washrooms, wheel chair facility etc).

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, Geethanjalis are made to remind that they are being watched and observed by peers and conduct themselves as role models for others. Inculcation of Human Values is demonstrated first by teacher, later imbibed by students. Faculty 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.

Rights, Duties and responsibilities of citizens:

The college offers a mandatory audit course on Indian Constitution which deals with fundamental rights

and responsibilities of citizens. College organizes programs which drives home the point that rights are always associated with responsibilities and are mutually linked to one another.

Formal and informal, co-curricular and extra-curricular 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	Document
<ul style="list-style-type: none"> • Details of activities that inculcate values; necessary to render students in to responsible citizens 	View Document
Any other relevant information	View Document

7.1.10 The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard.

- 1. The Code of Conduct is displayed on the website**
- 2. There is a committee to monitor adherence to the Code of Conduct**
- 3. Institution organizes professional ethics programmes for students, teachers, administrators and other staff**
- 4. Annual awareness programmes on Code of Conduct are organized**

Response: A. All of the above

File Description	Document
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programs etc., in support of the claims	View Document
Code of ethics policy document	View Document
Any other relevant information	View Document

7.1.11 Institution celebrates / organizes national and international commemorative days, events and festivals (within 500 words).

Response:

The vibrant student clubs, and other units of the college celebrate several 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:

A: International-level commemorative days celebrated:

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 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.

B: National-level commemorative days celebrated:

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 its 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	Document
Geotagged photographs of some of the events	View Document
Annual report of the celebrations and commemorative events for the last five years	View Document

7.2 Best Practices

7.2.1 Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual.

Response:

Best Practice No. I:

Title of the practice:

“Reduced class strength for improved student learning and employability”

Objectives of the Practice

- **Enhance** student-teacher interactions in labs/classes
- **Quicker feedback** as faculty devote more time assessing students' assignments, laboratory/project work/tutorials for improved performance.

- **Enhanced learning** experience through increased one to one participation among students and with faculty, especially in labs/tutorial sessions
- **More** opportunities to learn from peers, augmenting collaborative and cooperative learning
- **More discipline and control** over the class leading to increased student engagement
- **With increased interaction** among classmates, students gain quality learning experience.

Facilitate:

- Comfortable seating arrangements
- Improved Elbow-room to better manoeuvrability
- Improved personal space
- Better Student to Faculty ratio

enabling higher levels of student focus, eventually leading to improved performance.

The Context

“When classes are small enough to allow individual student-teacher interaction, a minor miracle occurs: Teachers teach and students learn” – Lou Anne Johnson, teacher whose life inspired the movie, “Dangerous Minds”

Of late, it has been observed that students’ focus and attention span is waning due to various factors: digital media/technology, nuclear families leading to majority of students needing personal attention and many such others.

Further, adolescence, acting as a catalyst, has necessitated need for enhanced individual attention.

In this context, faculty need to understand student psychology, enable learning through close monitoring, actively engaging, promoting originality/creativity, innovation, inculcating high-level analytical/logical thinking skills, leading a path to exploration and providing quicker feedback on learning. This also facilitates learner-centric approach, can be better put into practice, with smaller class sizes than larger ones. Incidentally, effective mentoring of student can be conducted making student realize his/her true potential leading to higher levels of performance.

The Practice

A few of our faculty who have studied and worked in universities abroad, have experienced that coursework in a class with smaller number of students is congenial for reaching out to the needs of students, ensuring 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.**

Keeping this in view, in CSE and ECE classes, each section having 240 students, we have reduced the class strength to 45-48 students per section instead of the normal 60 -66 students.

Towards this, departments have identified the requirement of additional faculty and infrastructure facilities. Accordingly, the institution has recruited more faculty, and increased infrastructure facilities. This practice has been adopted starting with the admitted batch of 2016-17 academic year soon after the college was

granted autonomous status.

Our classes have three-seater benches with six rows and four columns, capable of accommodating 72 students. However, we have ensured that the middle seat in each bench is kept vacant ensuring that students have a more comfortable seating comfort needed since students spend nearly 6/7 hours a day. This also ensures adequate social distancing, especially required during the pandemic and beyond. It also reduces cross-talk, thereby **noise in the classroom, thereby ensuring better class-room management.** Reduced class size also benefits slow learners and disadvantaged students hailing from rural background.

Consequences:

Nearly 25% of faculty have been increased in CSE and ECE departments and the expenditure on salaries also have increased by 1.5 crore rupees/year. Over and above, operational expenditure on labs, in terms of consumables, equipment maintenance and repair, and electricity charges has increased. Expenditure on civil infrastructure and class room furniture also increased, for which budgetary provisions have been made and approved by the college.

Evidence of Success

Ever since the academic year 2016-17, class size kept as 45-48, our graduate outcomes have improved. More students have been participating in co-curricular activities, namely, Project/Problem-based learning, paper/poster presentations, creative/innovative activities, Hackathons, programming contests and student club activities leading to increased campus placements with higher pay package.

Students have designed and built several prototypes, developing collaborative/cooperative learning in groups, discussing ideas, exchanging views/thoughts and listening to ideas of others with open mind resulted in Geethanjali securing a rank of **4 STAR** in MHRD-IIC, **EXCELLENT** band in ARIIA and few start-ups.

Reduction in class size also facilitated reduced workload on teachers as they need to mentor, assess lesser number of students' work, resulting in teacher spending quality time ensuring better and improved learning experience for students leading to enhanced graduate outcomes and employability.

Problems Encountered and Resources Required

Implemented smaller class sizes in CE, EEE and ME, also for one academic year. Unfortunately, admissions in these are low in first year. However, lateral entry students join in second year, filling vacant seats of first year. While reducing class size, increasing sections in second year, distribution of students in order of merit/skills into another section needed students grouped earlier to be divided further. Parents and students complained as students by then have developed rapport/friendship with some and were reluctant to move. Hence, discontinued this in these disciplines.

Identifying and recruiting senior teachers, especially, domain experts in emerging areas of CSE, as several colleges simultaneously started the same. Requires extensive training of existing faculty as well as recruiting faculty available.

More Infrastructure, more faculty required, especially, senior teachers for second- and third-year classes requiring more financial resources. Unfortunately, additional faculty salary is not considered while fixing tuition fee by Government.

Notes (Optional)

It is suggested that other colleges may choose to adopt this practice in a stepwise manner, initially in the departments in which strong faculty are available, carving a niche for the department, and then extend it to other departments as this practice not only enhances overall skill set of students but also promotes a culture of innovative spirit which in the long run may result in the establishment of many start-ups for promoting **Atmanirbhar/Make in India** movement for sustainable development.

Best practice No. II:

Title of the practice

Decentralized departmental administration for improved scholarly academic/research

Objectives of the Practice

Geethanjali passionately believes that faculty is at the heart of all its Teaching-learning operations. Attitudes of the teachers lie at the epicenter of significant innovation in education. The beliefs, assumptions, and feelings of our teachers are the crux of our learning environment, thereby determining the quality of life for students:

- Faculty development through a healthy mentor-mentee relationship
- More learning opportunities for faculty, facilitating career progression
- Ease of administration and functioning of department through decentralization
- Establishment of second rung leadership in various specializations
- Quality learning experience for students and faculty with satisfaction
- Better resource management

The Context

Higher pay packages in industry luring the cream of young talent resulting mostly in less talented professionals opting for teaching. Further, enormous increase in number of institutions, increased divergency in many fields, resulting in more super specializations due to fast changing technological advancements, lead to requirement for creation of good talent among professionals opting for teaching, by nurturing them on nuances of teaching, being creative, innovative and updating themselves through research. Meeting these challenges, Geethanjali has structured each department into four/five specializations with one senior faculty, a few more middle level faculty as mentors and four/five junior faculty as mentees. In doing so, addressed a few teething problems.

- Time constraint: Each faculty member has fixed workload. Fruitful discussions between mentor-mentee, call for allotted common free time during/after working hours making this an onerous task.
- Apprehensions of faculty regarding exposure of their weaknesses, if any:

The Practice

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

Each group is led by a professor (Group Head) 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.

Facilitating quality teaching

Group head along with lead faculty meets mentee faculty at least twice a week and discusses with them on preparation of a good lesson plan, establishing creative and innovative experiments, projects, giving hands-on exposure to students, conduct of student mentoring and use of modern tools, to name a few. Group head also suggests faculty to attend FDPs/FIPs/workshops, Lectures of eminent teachers within/outside the college in order to understand and practice various pedagogies.

Curricular development

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 to the Board of Studies. Identify emerging trends in industry, propose value-added courses for students to improve their skills.

Inculcating an improved research culture

Group head motivates junior faculty to pursue research, connects them to a network of researchers, encourages to present seminars on research topics pertaining to the group by updating themselves, thereby facilitating in the identification of research guides, platforms for publication of research and establishment of research culture within the group.

Group head helps faculty in implementing group's long range plan in the development of

- Courses with diversity/multidisciplinary competence.
- Global awareness and predicting technological advances, if any.

Also suggests mentees to conform to international standards of all course offerings pertaining to the division. Helps them in the identification of high-end equipment, hardware/software for procurement.

Identifying talent and development of leadership qualities

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.

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.

Evidence of Success

The above structure, kept in place since January 2017, has been bringing incremental improvements in the teaching-learning process of theory courses, laboratory instruction, project/problem-based learning, student participation in coding competitions, Hackathons and project exhibitions leading to development of prototypes. Faculty research publications and patents filed also improved.

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

S.No.	Item/AY	2016-17	2017-18	2018-19	2019-20	2020-21
1.	Student Participation in Coding Competitions	10	12	23	26	26
2.	Student Participation in Hackathons	-	72	214	205	14
3.	Student Participation in Project Exhibitions	600	1761	1509	120	16
4.	Research Publications	100	163	71	102	10
5.	Patent Filed	-	3	3	9	22

Problems Encountered and Resources Required

No takers for certain specializations and few specializations have high demand.

Attaching mentees to mentors based on research interests/specializations is increasingly becoming a tough task, making some faculty members feeling jittery.

Also sometimes resulting in unavailability of mentors in some specific areas/specializations, although more junior faculty showing keen interest to pursue their research/offering courses in those specializations. It's because research areas of some mentors are not in emerging areas. Also, many group heads/senior faculty are bogged down with administrative responsibilities.

Resources required

- Competent faculty working in emerging areas
- Adequate discussion rooms for each department
- Seminar halls and research labs for each specialization/department
- Adequate transportation facilities for faculty working late hours.
- Recruitment of faculty and staff with administrative experience involving accreditations/affiliations to reduce administrative load on group heads for increased mentor-mentee interaction for further improvement of publications, patents and quality learning experience for all.

Notes (Optional)

This practice adopted by Geethanjali can be replicated in other institutions as well.

Whenever parent institution finds itself relatively weak in some areas, may choose networking with other institutions where strong mentors with proven credentials are available.

This facilitates organization of FDPs/FIPs, collaborative research proposals, doctoral research guidance, creative and innovative projects by students and sharing of resources for a mutually beneficial outcome.

When this sort of networking takes place between institutions it can also facilitate several other activities, adoption of procedures and other institution's best practices making both the institutions flourish. A group of institutions may also come forward by networking together forming a consortium of institutions for enhancing faculty competences.

File Description	Document
Best practices in the Institutional web site	View Document

7.3 Institutional Distinctiveness

7.3.1 Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

Response:

Facilitating training for improved Placements:

The first PEO of all programs of Geethanjali is gainful employment or pursuit of higher education. Gainful employment is essentially facilitating students in securing a good job while studying in college, which we are coining it as 'Campus Placements'. This is an area of utmost priority for any professional college and so is the priority for Geethanjali. In this context, Geethanjali has been doing exceedingly well in terms of getting the students placed in many IT and IT-enabled service (ITES) companies, namely, TCS, Wipro, Cognizant, Accenture, and others.

Any parent and his/her ward always look for quality education coupled with a good placement. Geethanjali has, therefore, designed its curricula, adopted teaching learning process, has been executing a meticulously planned and structured training program, with a sharp focus on improving not only the number of placements but also quality of placements, particularly in terms of the salary package and reputation of the company, which is, Geethanjali's thirst and thrust.

Keeping this in view, skills namely, problem-solving, critical-thinking, logical-reasoning, programming, creativity, innovation communication and interpersonal skills, which employers look for in fresh engineering graduates. College has undertaken several initiatives to impart these skills to students. Apart from strengthening the core teaching-learning process, which is the backbone of any college, Geethanjali has been continuously striving in facilitating and supporting in the honing of the following skills among students:

- Basic programming skills
- Advanced programming skills
- Quantitative aptitude development
- Critical thinking and logical reasoning
- Verbal ability, creative and situational writing
- Soft skills

Even though students of all engineering branches study Programming and Problem-solving using C language during their first year of engineering, non-CSE (ECE, EEE, ME, CE) students tend to lose touch with programming as they progress in their respective branch of engineering since they do not apply and use programming to solve problems pertaining to their engineering courses. As programming is now considered not only a necessary skill to be employable, but also a life skill, Geethanjali has been encouraging faculty and students of all engineering branches to integrate programming into their regular

laboratory work and assignments in various courses, wherever possible.

Geethanjali has associated with professional third-party vendors to facilitate students with the necessary programming skills, mainly planned for targeted improvement of their employability opportunities. Students from all branches of engineering, eligible for placements, are given training to refresh and enhance their programming skills. This usually takes place during the sixth (6th) semester and following summer vacation, just before the placement season begins in the first semester of their final year.

It is observed that focused training in programming, sometimes designing and scheduling a mock placement drive for a specific company, has immensely helped students to get placed in higher numbers.

It is heartening to note that Geethanjali has consistently done well in terms of placements in IT and ITES companies, with pay packages varying between 3.6 LPA and 4.5 LPA. However, the number of placements with product-based companies, wherein the pay packages are 5LPA – 10LPA and above is viewed as the hallmark of any good college. Keeping this in view, and with the strong placement record in IT and ITES companies, the next logical step is to aim at helping the students to develop the necessary skills to get selected in such companies that offer much higher pay packages.

Most product-based companies, in addition to testing the students in their aptitude, also examine their higher order programming and problem-solving skills. Consequent to this thought process, we roped in another third party premier training organization with proven track record, to impart necessary skills to get a job in product-based companies such as Amazon, Microsoft, DE Shaw etc., to train around 150 students, selected out of nearly 800, and started enhancing their advanced data structures, algorithms and problem solving skills since the academic 2020-21. The impact of this advanced training program is clearly visible in the increased number of placements for the 2021 and outgoing batches in product-based companies. For the 2023 outgoing batch of students, the training has commenced in their Third year second semester in order to provide ample time to hone their skills and also practice a large number of problems long before the placements season begins in July, 2022.

Some companies like Cognizant and Virtusa for example, have started hiring fresh engineering graduates in specialized roles such as Data Scientist, IoT Engineer, full Stack Developer and UI developer, Cloud Engineer etc. The students are expected to demonstrate significant skills in those areas at the time of recruitment.

Even though the current curriculum of CSE and IT branches provide for these areas, it is felt that PBL as a co-curricular activity would also help the students in enhancing their skills in emerging areas such as AI & ML, Data Science, Cloud Computing, IoT and Cyber Security. We have entered into an association with SmartBridge and Cantilever labs, who offer externship programs designed to provide skills matching the needs of IT companies to our students at the end of their second year itself.

Placements and highest pay package of last Five Batches of graduates of Geethanjali

Batch	Autonomous Batches			2015-19	2014-18	2013-17
	2018-22	2017-21	2016-20			
No. of placement offers (Individual students placed)	1400 (673)	993 (568)	748 (478)	547 (455)	543 (390)	497 (350)
Highest package	13.2	10	7	7	6	6

(Rs in LPA)					
<p>As can be seen from the table, the total number of offers has increased from 547 to 1400, in the last three years (2018-19 to 2021-22). This significant growth, has resulted in a quantum jump in the number of offers in the Rs.4-5 LPA range as well as Rs.6 LPA and above. In the context of this perceptibly large improvement in the total number of offers over the years, this can be construed and even attributed to the training program imparted, which in our perception is not only highly desirable but also a distinctive practice of this growing institution.</p>					
File Description			Document		
Any other relevant information			View Document		
Appropriate web in the Institutional website			View Document		

NVAAC

5. CONCLUSION

Additional Information :

Geethanjali, started administering UG programs in CSE with specializations in emerging areas (EA), namely, AIML, CS, DS, and IoT from the academic year 2020-21, in addition to the UG programs in CSE, ECE, EEE, IT, ME and CE. Currently, student intake in CSE, CSE(EA) and IT stands at 660 and for 2022-23 it is likely to go up to 780. Keeping this in view, and more than 90% of the recruitment happening in IT/ITES companies, Geethanjali feels the necessity to have an increased tie-up with IT industry. To this end, in the academic year 2021-22, institution has reconstituted its Governing body, Academic Council and Board of Studies of various departments by inviting experts working at senior positions from IT industries, to guide the institution in-terms of curricular design, strengthening the training of students, in particular, with skill set requirements of IT/ITES companies, emphasizing in EA.

Further, Institution has organized faculty development programs in CSE(EA), to improve faculty competencies and about 60 faculty of CSE/IT/CSE(EA) have attended the same. Institution has also entered into MoUs for student and faculty training and student internships. About 10 senior faculty with specialization in CSE(EA) have joined the institution on invitation.

Non-CSE/IT discipline students are also given training on Programming skills to enhance their employability.

Further, students solve assignments in core engineering and mathematics courses using C-programming.

Emphasizing on multidisciplinary education and research, institution's incubation centre tied-up with R&D organizations, and MSMEs, resulting in 20 prototypes.

Institution has been invited to present a talk on “Best Practices in Technical Education-Financial Sustainability in Universities” at the All-India Conference of Vice-Chancellors of Universities offering Engineering and Technology programs held at the Jawaharlal Nehru Technological University Hyderabad, during April 8-9, 2022.

Institution has conducted two webinars on NEP-20.

With all the above additional efforts, to further improve the quality of professional education and to enhance its core capabilities, Geethanjali is determined to not only reach out to the imminent employability and skill needs of our Learners, but has already been administering the same, to render our learners, a cut above the rest, facilitating them to perform much better.

Concluding Remarks :

Geethanjali has been imparting high quality education through inspiring and passionate faculty, who are committed to the cause of education, believe teaching is a calling, and whose conviction is that there can be no significant innovation in education that does not have professionalism and right attitudes among themselves supported with good infrastructural facilities. Towards this end, and in alignment to our vision, our faculty consider young learners as the epicentre for knowledge dissemination, and have been striving to nurture them with care, concern and compassion to ensure that they not only perform exceedingly well, but also contribute

their might towards nation building in a sustained manner.

Institution is highly quality conscious, and has been constantly upgrading its infrastructure, curricula, teaching quality, developing faculty capacities/competencies, augmenting student support systems, improving institutional organization and governance, adopting exceptionally good practices in its long journey to achieve its cherished vision.

Consequent to this, the institution has been getting its eligible UG programs duly accredited by NBA regularly since July 2012, and the institution itself is accredited by NAAC with “A” grade in June 2017. Currently, all its eligible UG programs are accredited by NBA. Institution has also been recognized as SIRO, by DSIR, since 2011, 4-star by IIC, ARIIA ranking in Excellent Band, MHRD and NIRF rank in 251-300 Band in 2021.

Institution’s faculty have been publishing research papers and patents. Executed sponsored projects worth about Rs.1.15 crores.

Student placements have been continuously increasing, as also the highest pay package and median salary.

Although institutional effectiveness can be measured in many ways, one of the most fundamental measures is the success it has achieved in contributing to the achievement of its students’ goals, which is, ensuring students’ placements and/or facilitating them to pursue higher education, which is the first of the PEOs of all our UG Programs. As a matter of fact, it is also **our institutional distinctiveness, giving priority and thrust**. To this end, institution feels that it has been doing quite well, although it believes that there is much more that can be achieved in the years to come.