



SELF STUDY REPORT

FOR

1st CYCLE OF ACCREDITATION

SIES GRADUATE SCHOOL OF TECHNOLOGY

**PLOT NO. 1/C/D/E SRICHANDRASEKARENDRA SARASWATI VIDYAPURAM,
SECTOR 5, NERUL**

400706

www.siesgst.edu.in

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

The South Indian Education Society (SIES) established in 1932 at Matunga, Mumbai, is a pioneer in the field of education, in this metropolis. It has been at the forefront in the field of education for more than 85 years, presently imparting quality education through 20 disciplines. The Society has been serving the cause of education and has carved for itself a niche, as a provider of quality and value based education from Nursery to Doctoral level in a wide variety of fields and now working on a mission to provide education to 50,000 students by 2022. The institute seeks to achieve the educational mission by focusing on the modes of inquiry, which strengthens thinking skills and provides extensive field experiences, to bring together theory and practices.

The SIES established the Graduate School of Technology (GST) in the year 2002 at Nerul, Navi Mumbai with a view of promoting technical education. It provides the best of facilities at the GST to impart education in the field of Electronics & Telecommunication Engineering, Computer Engineering, Information Technology, Printing & Packaging Technology, and Mechanical Engineering.

The SIESGST is approved by the AICTE and affiliated to the Mumbai University, for conduction of its courses and recruitment policies as per the requirement of AICTE and the University. It was certified by ISO 9001:2008 Quality Management System (2005-2017), NBA accredited (2012-14) and has also been accredited by Tata Consultancy services (TCS) since 2005. The institute has the reputation of being known for its discipline and integrity.

Vision

To be a centre of excellence in Education and Technology committed towards Socio-Economic advancement of the country.

Mission

1. To impart advanced knowledge in Engineering and Technology.
2. To transform young minds towards professional competence by inculcating values and developing skills.
3. To promote research and ensure continuous value addition among students and employees
4. To strengthen association with industry, research organizations and alumni to enhance knowledge on current technologies.
5. To promote next generation technocracy and nurture entrepreneurial culture for social-economic growth.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

1. **Management:**

Strong and supportive management which has a progressive view and provides holistic development of its students and staff.

2. **Faculty:** Sincere and enthusiastic, a blend of experienced and young professionals dedicated to teaching.

3. **Infrastructure:** Institute has well-equipped state-of-the-art laboratories with high-end equipment and software.

4. **Use of ICT:** Teaching and learning process through the effective and intensive use of ICT is one of the best practices of Institute.

5. **Social responsibility:** The institute is known for taking up socially relevant causes through various initiatives by students and staff.

Institutional Weakness

1. Limited number of research publications in peer-reviewed journals.

2. Limited research grants, consultancies and patents.

3. Non-Residential Campus

Institutional Opportunity

1. To build on the strength of experienced and young professionals dedicated to teaching,
for development and growth in research and consultancy activities.

2. Increase in Industry Institute Interaction through MoU with reputed institutions and
premier industries.

3. Equipping students with the right mix of interpersonal and technical skills through
internships and bridge courses for industry readiness.

4. Enhancing alumni collaboration.

Institutional Challenge

1. Develop the aptitude for Entrepreneurial and innovative skills in current tremendously volatile industrial

scenario.

2. Market driven admissions in few branches in turn hampering the quality intake of students in other branches.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

SIESGST is affiliated to the University of Mumbai (UoM) and follows the curriculum stated by the University. Faculty members participate in the curriculum design workshops conducted by the university. UoM considers the feedback from various industries and alumni to develop the curriculum of different programs. The academic calendar is made at the Institute-level before the beginning of the semester based on UoM academic calendar.

The salient feature of the Teaching-Learning process is that it synthesizes conventional mechanisms of learning such as lectures and laboratory sessions with interactive teaching-learning aids like seminars, in-house mini projects, adjunct courses, guest lectures, industrial visits and assignments. Blended learning models using technology is encouraged to have outcome based learning and enable students collaborate and network effectively. The extra coaching for academically weak students is given lot of importance and is included in this process.

The Faculty handbook is an innovative endeavor of GST designed to facilitate faculty in recording all aspects of teaching a course. Teaching plan and its execution, Attendance and evaluation, time table, academic calendar, result analysis, defaulter's lists etc. are the records maintained by each faculty in this handbook.

Seminars, workshops, tie-ups through a Memorandum of Understanding with industries, industrial/site visits, participation in various technical activities and value-added programs are regularly conducted to facilitate students learning beyond the prescribed syllabus. Various certificate courses are conducted for professional development of the students in preparing them industry ready.

Teaching-learning and Evaluation

The college ensures smooth and transparent admission process which is in compliance with norms set by Maharashtra state government for Under graduate (UG) engineering admissions. The admissions are based on the entrance examination conducted by the state government (MHCET) as well as at national level (JEE). Being a minority institution, 51% are admitted at institute level under minority quota, 29% percent students are admitted through centralized admission process by DTE and remaining 20% are admitted at institute level quota on merit basis. The college supports students from various categories in terms of financial assistance, academic assistance for weaker and brighter students and differently-abled students.

The teaching learning process is effectively followed to ensure knowledge and skill development across all cognitive levels. The teaching plan prepared at the beginning of the semester ensures effective integration of active learning strategies and innovative practices. The students are mentored by teachers in all aspects to address academic and non-academic related issues.

The well qualified and experienced teachers are recruited based on the requirement set by AICTE norms. The teachers are encouraged to improve their qualification and enhance their knowledge by attending various workshop, seminars and STTPs. The good management policies and academic environment has resulted in high retention ratio.

Regular student feedback on improving quality of teaching learning process is taken twice in a semester for timely corrections.

Research, Innovations and Extension

The college has good infrastructure in terms of number of laboratories, laboratory equipment and library resources for the research. Faculty members are always motivated for the research project. This has resulted in good number of publications in conferences as well as in journals.

At SIES GST, the students are also encouraged to apply their engineering knowledge and skills to find solutions for various day-to-day problems which will help to build a better world for the future. This is fostered through active professional student chapters and the entrepreneurship development cell (EDC) of SIES GST started in the year 2011 to encourage the students to innovate, promote innovation and entrepreneurship. The institute encourages faculty members & students to participate in national and international conferences.

The Institute believes in the holistic and all-round development of its students. It has a very active National Service Scheme (NSS) unit, which serves as a platform for students to address many social issues of great importance. The NSS unit organizes various street plays that speak to large audience about topics such as waste management, mental healthcare, saving the girl child and prevention of female infanticide, the importance of blood donation and more. The WDC also regularly invites women achievers to inspire the students of our college, and organizes self defense workshops to inculcate an independent sense of self-reliance within our female students.

The college has good collaboration with industries, academic institutes and professional bodies.

Infrastructure and Learning Resources

A well-developed infrastructure creates interest among students towards conducive learning environment. To provide this, the institute has adequate physical facilities such as classrooms, laboratories, seminar halls as specified by the regulatory authority and are updated regularly from time to time. The classrooms and laboratories have good ambience and are comfortable for seating for longer duration. All of them are Wi-Fi enabled and have provision for use of LCD projector. Facilities for extra-curricular activities like sports, cultural events, technical events, yoga as well as gymnasium are provided on campus. Primary medical facility and counseling for staff and students is available during working hours of the institute. It is ensured that the infrastructure is comfortable for physically challenged students. CCTV facility is implemented in all laboratories and at important locations throughout the institute.

The central library in the institute has books, manuals, handbooks, e-journals, e-books, encyclopedia and databases, the transactions of which are done through use of ILMS. NPTEL lectures series is widely used by students as well as faculty members. Other library facilities include extended working hours, book bank facility, new arrival information and photocopy.

A 155MBPS internet speed connects around 600 computers on campus and provides Wi-Fi facility to faculty and students on laptop. All necessary educational and related software are installed in required laboratories and are regularly made use of.

The institute has maintenance system for all essential facilities and maintenance is carried out throughout the year and as and when required by appointing external agencies.

Student Support and Progression

The institute takes an effort to provide the necessary guidance to students, to enable them to acquire meaningful experience for learning in the campus and to facilitate their holistic development and progression. To help and support students in their pursuit to become responsible citizens, the institution provides welfare schemes/scholarships/free ships for SC/ST/OBC and economically weaker students. Some are purely government based and some are supported by the community or management.

Institute conducts various activities for guiding students for competitive examinations, soft skill and professional development. It also conducts remedial classes for the weaker students and courses on different topics to bridge the gap between the industry and academics. The institute facilitates language lab, personal counseling, career counseling and vocational education training to prepare and guide students to have successful career.

Students are supported and guided for preparation of various State/National/International Level exams like GATE/CAT/GRE/TOFEL/IELTS. Students have excelled in the same and have got admitted to renowned Universities across the globe. SIESGST has an active T&P cell with an average of more than 50 companies coming every year.

Institute has a very active student council and various professional bodies through which it conducts Sports, Cultural and Technical Events at College, University and National Level. Students are also encouraged to participate in various events at University, State, National and International Level.

The Institute has a registered Alumni Association, actively involved in conducting workshops/seminars, advisory roles in Institute/departmental bodies and others. in Institute/departmental bodies and others.

Governance, Leadership and Management

The institute has a vision to be a centre of excellence in Education and Technology committed towards Socio-Economic advancement of the country.

The leadership of SIESGST is through participative management all the way through structured organizational system with the involvement of all the Stakeholders. Various stakeholders of the institute are members of different committees constituted by the institution. To achieve the goals, SIESGST has a well-defined perspective plan involving focus areas and the plan of action and also measures to verify their achievements. The institute has a very active student council catering to the varied student community. For the smooth and quick operation, the institute has implemented e-governance in various areas.

Human resource planning including recruitment, performance appraisal and professional development

programmes are core activities of SIESGST. Regular feedback from all the stakeholders is taken to form an invaluable input to planning.

Proper strategies for mobilization of funds and the optimal utilization of resources are actively undertaken in SIESGST by encouraging faculty members and students.

During 2005-17, SIESGST was ISO 9001:2008 Quality Management System (QMS) certified. The Institute has an active internal quality assurance cell (IQAC) formed in the year 2017. The institute also has TCS accreditation (since 2006) and had NBA accreditation (2012-14). ation, actively involved in conducting workshops/seminars, advisory roles in Institute / departmental bodies and others. in Institute / departmental bodies and others.

Institutional Values and Best Practices

SIESGST has adopted environment-friendly policies on Green Practices and Solid Waste management. Production of manure is done from the Institute owned & operated compost pits for biodegradable waste. E-waste generated in the institute are collected and dispensed through an external agency.

Institutional values are regularly disseminated to all stakeholders through Institutional website, notice boards, Institutional events and Google Apps.

An innovative practice followed by SIESGST is the Mentor-Mentee scheme to identify the strengths and weaknesses of every student at entry level. The mentor assigned to every batch of 20 to 25 students strives to understand students' academic and personal problems and also identifies those in need of extra academic coaching or personal counselling. The mentor thus guides every student on regular basis for improving their academic performance as well as their personal lives.

Best Practices in SIESGST involves early adoption of Google Apps for Education for collaboration and communication among all the stakeholders and design, development and use of Faculty Handbook for efficient and effective education planning & delivery.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	SIES GRADUATE SCHOOL OF TECHNOLOGY
Address	Plot No. 1/C/D/E Srichandrasekarendra Saraswati Vidyapuram, Sector 5, Nerul
City	Navi Mumbai
State	Maharashtra
Pin	400706
Website	www.siesgst.edu.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal(in-charge)	Atul N Kemkar	022-61082401	9819150392	022-27718779	principal@siesgst.ac.in
IQAC / CIQA coordinator	Leena V Ladge	022-61082466	9867801816	022-	iqac@siesgst.ac.in

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	Yes
If Yes, Specify minority status	
Religious	
Linguistic	Tamil
Any Other	

Establishment Details				
Date of establishment of the college	16-08-2008			
University to which the college is affiliated/ or which governs the college (if it is a constituent college)				
State	University name	Document		
Maharashtra	University of Mumbai	View Document		
Details of UGC recognition				
Under Section	Date	View Document		
2f of UGC				
12B of UGC				
Details of recognition/approval by stationary/regulatory bodies like AICTE, NCTE, MCI, DCI, PCI, RCI etc (other than UGC)				
Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day, Month and year (dd-mm-yyyy)	Validity in months	Remarks
AICTE	View Document	10-04-2017	12	

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

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

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Plot No. 1/C/D/E Srichandrasekarendra Saraswati Vidyapuram, Sector 5, Nerul	Urban	3	15113.82

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	BE,Electronics And Telecommunication Engineering	48	HSc with CET or Diploma	English	120	105
UG	BE,Computer Engineering	48	HSc with CET or Diploma	English	90	90
UG	BE,Information Technology	48	HSc with CET or Diploma	English	60	60
UG	BE,Mechanical Engineering	48	HSc with CET or Diploma	English	60	59
UG	BE,Printing And Packaging Technology	48	HSc with CET or Diploma	English	60	38

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	8				19				79			
Recruited	2	0	0	2	3	7	0	10	21	40	0	61
Yet to Recruit	6				9				18			
Sanctioned by the Management/Society or Other Authorized Bodies	0				0				31			
Recruited	0	0	0	0	0	0	0	0	10	21	0	31
Yet to Recruit	0				0				0			

Non-Teaching Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				45
Recruited	30	9	0	39
Yet to Recruit				6
Sanctioned by the Management/Society or Other Authorized Bodies				6
Recruited	0	0	0	0
Yet to Recruit				6

Technical Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				28
Recruited	14	3	0	17
Yet to Recruit				11
Sanctioned by the Management/Society or Other Authorized Bodies				11
Recruited	0	0	0	0
Yet to Recruit				11

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/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	2	0	0	2	2	0	2	5	0	13
M.Phil.	0	0	0	0	0	0	1	4	0	5
PG	0	0	0	1	5	0	19	31	0	56
UG	0	0	0	0	0	0	0	0	0	0

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	2	0	0	2
M.Phil.	0	0	0	0	0	0	0	1	0	1
PG	0	0	0	0	0	0	7	20	0	27
UG	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/DM/MCH	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
UG	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		Total
	1	1	0	2	

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

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	255	9	0	0	264
	Female	109	11	0	0	120
	Others	0	0	0	0	0

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

Category		Year 1	Year 2	Year 3	Year 4
SC	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
ST	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
OBC	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
General	Male	113	110	107	128
	Female	63	65	68	73
	Others	0	0	0	0
Others	Male	112	99	121	123
	Female	58	31	55	91
	Others	0	0	0	0
Total		346	305	351	415

Extended Profile

1 Program

1.1

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

Response: 450

1.2

Number of self-financed Programs offered by college

Response: 6

1.3

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

Response: 0

2 Students

2.1

Number of students year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
1846	1854	1886	1886	1705

2.2

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

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

2.3

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

2016-17	2015-16	2014-15	2013-14	2012-13
472	468	465	382	323

2.4**Total number of outgoing / final year students****Response: 459****3 Teachers****3.1****Number of teachers year-wise during the last five years**

2016-17	2015-16	2014-15	2013-14	2012-13
98	107	113	110	102

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

2016-17	2015-16	2014-15	2013-14	2012-13
98	107	113	110	102

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

2016-17	2015-16	2014-15	2013-14	2012-13
102	108	113	110	102

3.4**Total experience of full-time teachers****Response: 4909****3.5****Number of full time teachers worked in the institution during the last 5 years**

Response: 530

4 Institution

4.1

Total number of classrooms and seminar halls

Response: 29

4.2

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

2016-17	2015-16	2014-15	2013-14	2012-13
1019.37198	967.606951	978.91710	909.72746	815.56627

4.3

Number of computers

Response: 600

4.4

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

Response: 1.10207

4.5

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

Response: 0.55220

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curricular Planning and Implementation

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

Response:

The South Indian Education Society's Graduate School of Technology affiliated to University of Mumbai (UoM) takes adequate and timely measures to ensure effective curriculum delivery. A well planned and documented process is in place and followed through the semester.

The Institute follows the syllabus prescribed by the UoM. Based on the syllabus and the student strength, workload is calculated every semester by the heads of the departments (HoDs). Depending on the expertise, experience, opted choices and the actual requirement in the department the subject allocation is done. The time table committee prepares the time tables (class, laboratory and Individual faculty) for all programs every semester. As per the academic schedule given by the University, the academic calendar is proposed by the Principal of institute and is approved by academic council in the review meeting. The academic calendar is distributed to the faculty members prior to the commencement of semester.

The Principal and academic council are responsible for implementation of academic activities. To aid in this process a faculty handbook is maintained. The hand book consists of session plan, individual time table, academic calendar, list of text and reference books, list of experiments and assignments, attendance for theory/tutorials/practical, continuous evaluation of student, term work marks calculation etc. The faculty handbooks are regularly reviewed by the respective HoDs and Principal.

Each faculty member maintains a course file consisting of syllabus, extended syllabus copy, course notes, laboratory manual, university question paper, course outcomes, mapping of course outcome with program outcomes and program specific outcomes. The gap analysis is done for all the courses belonging to the program. The gap may be prerequisite gap, course gap, semester gap or program gap. Discussion on the course gaps is done in the departmental advisory board meeting so as to bridge them with relevant guest lectures, seminars, workshops, value added courses, industrial visits, implementing projects etc. Prerequisite tests are conducted for the students at the beginning of the semester to identify their strengths and weaknesses. In addition to traditional classroom teaching, faculty members also use various ICT tools and active learning strategies. The process is also supplemented with an online learning management system to make it more effective.

A mentor-mentee scheme is implemented to guide the students so that they strengthen their academics as well as co-curricular and extracurricular skills. All notifications are issued to the students through their official email ID's created using Google Apps for education belonging to siesgst.ac.in domain. Review of coverage of the syllabus at each department is done through the faculty handbooks by respective HoDs fortnightly and monthly by the Principal. Timely corrective and preventive action is taken, if there is any deviation. Feedback from students is obtained for faculty, curriculum and infrastructure. The Principal and the Managing council of the SIES take the necessary action based on the feedback. SIESGST, thus ensures effective, up-to-date curriculum planning and delivery.

1.1.2 Number of certificate/diploma program introduced during the last five years**Response:** 0**1.1.2.1 Number of certificate/diploma programs introduced year-wise during the last five years**

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

File Description	Document
Details of the certificate/Diploma programs	View Document

1.1.3 Percentage of participation of full time teachers in various bodies of the Universities/ Autonomous Colleges/ Other Colleges, such as BoS and Academic Council during the last five years**Response:** 12.26**1.1.3.1 Number of teachers participating in various bodies of the Institution, such as BoS and Academic Council year-wise during the last five years**

2016-17	2015-16	2014-15	2013-14	2012-13
7	0	0	1	5

File Description	Document
Details of participation of teachers in various bodies	View Document
Any additional information	View Document

1.2 Academic Flexibility**1.2.1 Percentage of new Courses introduced out of the total number of courses across all Programs offered during last five years****Response:** 45.33**1.2.1.1 How many new courses are introduced within the last five years****Response:** 204

File Description	Document
Details of the new courses introduced	View Document

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

Response: 60

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

Response: 3

File Description	Document
Name of the programs in which CBCS is implemented	View Document

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

Response: 61.92

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

2016-17	2015-16	2014-15	2013-14	2012-13
1715	1632	830	602	899

File Description	Document
Details of the students enrolled in Subjects related to certificate/Diploma/Add-on programs	View Document
Any additional information	View Document

1.3 Curriculum Enrichment

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

Response:

SIESGST is affiliated to Mumbai University (UoM) and follows the curriculum prescribed by them. As part of the curriculum, there are few basic courses and topics included in many other core courses to

integrate cross- cutting issues relevant to Gender, Environment and Sustainability, Human Values and Professional Ethics.

All first year Engineering students have to take a compulsory credit course in Environmental Studies in the first semester. The main objective is to educate people for preserving the quality of environment. The course covers various aspects of environmental consciousness, conservation, protection and sustainability. It also covers the role of technological advancement to overcome environmental problems. It also aims to sensitize the youth about the various environmental concerns and importance of sustainability through case studies.

Business Communication and Ethics is another compulsory credit course which has to be completed by all the students across all the programs aiming at demonstrating knowledge of professional and ethical responsibilities .

The curriculum of Printing and Packaging Technology program covers a plethora of courses to address the importance of sustainability, Waste management, Packaging laws and regulations. The professional internship which is an integral part of the curriculum where students do their project in the industry, covers and inculcates Professional ethics and etiquettes in students.

Several courses pertaining to Renewable sources of energy are covered in Bio-Technology and Mechanical Engineering programs.

In addition to above, all the programs have topics included in some of the courses, handling professional ethics and human value aspects.

At SIESGST, through the project work, the students are not only encouraged to apply and implement original technical ideas but also to practice the professional work ethics.

File Description	Document
Any Additional Information	View Document

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

Response: 12

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

Response: 12

File Description	Document
Details of the value-added courses imparting transferable and life skills	View Document
Brochure or any other document relating to value added courses.	View Document
Any additional information	View Document

1.3.3 Percentage of students undertaking field projects / internships

Response: 14.41

1.3.3.1 Number of students undertaking field projects or internships

Response: 266

File Description	Document
List of students enrolled	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

1.4 Feedback System

1.4.1 Structured feedback received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni and 5) Parents for design and review of syllabus-Semester wise/ year-wise

Response: B. Any 3 of the above

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

1.4.2 Feedback processes of the institution may be classified as follows:

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

File Description	Document
Any additional information	View Document
URL for feedback report	View Document

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Average percentage of students from other States and Countries during the last five years

Response: 0.56

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

2016-17	2015-16	2014-15	2013-14	2012-13
13	16	10	7	6

File Description	Document
List of students (other states and countries)	View Document
Institutional data in prescribed format	View Document

2.1.2 Average Enrollment percentage (Average of last five years)

Response: 88.1

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

2016-17	2015-16	2014-15	2013-14	2012-13
345	305	351	415	384

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

2016-17	2015-16	2014-15	2013-14	2012-13
390	390	420	420	420

File Description	Document
Institutional data in prescribed format	View Document

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

Response: 0

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

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

File Description	Document
Institutional data in prescribed format	View Document

2.2 Catering to Student Diversity

2.2.1 The institution assesses the learning levels of the students, after admission and organises special programs for advanced learners and slow learners

Response:

SIESGST assesses and organizes special programs for advanced learners and slow learners.

Identification of slow learner in the class

Teachers identify signs of a slow learner with a careful observation in classroom and laboratory interaction. The slow learners are identified since first year based on- poor performance in tests like unit test and assignments, less involvement in classroom discussion, non-responsiveness of learner or not interested in the course, delay in the submissions, etc.

Assignment questions are designed in a manner that will help slow learner to improve their performance in the final exam. These questions are usually frequently asked questions related to important portion in the course. Practice sessions are arranged for slow learners.

Blended teaching learning techniques are adopted by the teacher for improving the subject understanding of the learner which is more beneficial for slow learners. For the second year of engineering where majority of the courses are core engineering, these students are asked to attend extra lectures arranged for direct second year diploma students. This helps them in improving their understanding of a subject.

For the slow learners remedial classes are conducted at the end of semester with the aim to help improve their understanding of the subject. Mentors during their regular meetings track the performance of slow learners and also report their performance to the parents. For the set of learners with very less interest in the course or those who forcibly joined the engineering course, counseling sessions are arranged with the help of mentors and professional counselors.

Identification of Bright students

Learners who listens carefully and learn with ease, answers frequently, enjoys peer, follows instruction properly, discusses technology and innovative idea are identified as brighter students. Performance in unit test and assignments, mini projects and seminars help in evaluating brighter students.

Identified bright students are encouraged to attend various workshops on the upcoming technology arranged by the department. To enhance their ability of applying concepts to solve new problems, team-building skills, they are motivated to participate in various intercollegiate and university level competitions. Learners aware of social responsibility usually are encouraged to carry out projects which have greater impact in a large way to society. Such bright learners are motivated to showcase their knowledge by participating in National and University level project competitions like Avishkar (University level project), NES(National Mobile app development) and other competition.

During their regular meeting with teacher, guide and mentor star performers are guided on improving their technical paper writing skills and later on motivated to present it in national and international conference with reputed publications.

Brighter students who are skilled in using technology are absorbed for the internship programs during their summer and winter vacation. This helps them in improving collaborative and cooperative learning.

Brighter students are provided guidance for pursuing their higher studies by organizing seminars. Preparatory classes on specified area are conducted to improve their eligibility in the entrance exams.

2.2.2 Student - Full time teacher ratio

Response: 579:34

File Description	Document
Institutional data in prescribed format	View Document

2.2.3 Percentage of differently abled students (Divyangjan) on rolls

Response: 0.11

2.2.3.1 Number of differently abled students on rolls

Response: 2

File Description	Document
Institutional data in prescribed format	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:

SIESGST conducts various student centric activities for effective teaching and learning. In such activities, learning gains of students in learning a concept or skill is high as they are active participants and teachers act as facilitators. The experiential learning is a process of learning through experience where students are given hands on training to develop technical skills, mini-projects, presenting seminars, etc. The participative learning activities enable students to engage in higher order thinking activities through in-class activities like- Think-Pair-Share (TPS), Flipped Classroom, Peer Instruction (PI), Problem Based Learning, Case-study, Group Discussion, etc. Students are given exposure to various problem solving methodologies like – Agile methodology, Engineering design process, etc.

Student seminars are arranged with objective to make learners aware of current trends in technology with the related course. Students are encouraged to give seminars on a new topic outside syllabus in each course. This enables students to look beyond the given syllabus and search for new topics or concepts from other sources like reference books, from research papers, latest technologies related to the course, applying the learned concepts to solve a real life problem, etc. This process helps students to gain knowledge about current trends, analyzing and comprehending technical content, presentation skills and teamwork.

Workshops are conducted on various technologies and tools like IoT, Robotics, Linux, Andriod, Phython, Matlab, Ethical hacking, Ansys CFD, etc to give hands-on training. These workshops help students to be industry ready and reduce the industry academia gap.

Mini projects are developed by the students at second year and third year level in a group of 2-3 at the end of the course. Students implement projects to solve real time problems using concepts and tools learned during the course. This activity help students to acquire problem solving skills like analyzing the problem, decompose the problem into modules, design the solution, selecting appropriate tool or technology for implementation.

Various in-class active learning strategies are conducted to improve the conceptual understanding of the topic. Think-Pair-Share (TPS) is a classroom active learning strategy in which teacher will pose a question at the higher cognitive level and students work on individual activity, discuss with peers and share their newly discovered knowledge with class. In flipped classroom, teacher shares the content in form of lecture notes, PPTs or video lecture before the class. Student learns the topic before coming to class and they are engaged in solving problems on higher order thinking skills. This activity enables students to solve the difficult problems in class with the help of teacher and peers. The case studies are conducted where students in a group of 2-3 study a topic on a particular case and faculty poses questions to direct the student's thinking towards understanding important aspects of the case study.

Student practices various project management and development techniques, engineering design methodologies to solve a given problem.

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

Response: 100

2.3.2.1 Number of teachers using ICT

Response: 103	
File Description	Document
List of teachers (using ICT for teaching)	View Document
Provide link for webpage describing the " LMS/ Academic management system"	View Document

2.3.3 Ratio of students to mentor for academic and stress related issues	
Response: 17.03	
2.3.3.1 Number of mentors	
Response: 103	
File Description	Document
Year wise list of number of students, full time teachers and students to mentor ratio	View Document

2.3.4 Innovation and creativity in teaching-learning
Response:
<p>The innovative and creative teaching learning techniques are used to enhance the quality of the teaching learning process. These techniques helped to enhance various skills like adept to using various teaching learning tools, self learning capability in students, improving analytical thinking, critical thinking, collaborative skills and team work.</p> <p>Some of the innovative teaching learning techniques used are-</p> <ol style="list-style-type: none"> 1.Students are encouraged to draw mind map in a course to enhance the conceptual clarity. 2.Students interacted with an online learning environment to solve real life problems using data structure. The skills developed were- Understand the problem from perspectives of multiple stakeholders, generate multiple solutions, analyse the solutions using pros and cons analysis, evaluate and select solution based on constraints and justify. 3.Students draw concept maps to link concepts, remember the concepts easily and understand the flow of topics 4. Various live course project topics were assigned to the students and they were informed to form a group of four to five students where in they design the given live problem using standard design data book. 5. To enhance Computer Aided Engineering (CAE) skills by solving field problems such as Thermal, Structural, Vibration Analysis etc and validation of numerical methods using Simulation/ CAE tool such as ANSYS 15.0 6. Innovative assignments are given to students to enhance their thinking ability and problem solving skills. Design problems are framed so that students can apply their knowledge in respective course and find out most feasible solution.

7. Google classroom is created for students for effective communication, facilitate paperless communication between teachers and students and streamline educational workflow. It allows teachers to create classes, post assignments, organize folders, and view work in real-time.
8. Innovative class assessment techniques are used to prevent copying and get every student engaged via Google classroom and Google faculty sites.
9. Video lectures helps student to understand the concept very clearly by listening and seeing the live examples
10. PowerPoint presentation with embedded audio questions to encourage students to listen to the questions while reading the content. This helped to create interest in students to learn from presentations.

2.4 Teacher Profile and Quality

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

Response: 99.03

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years	View Document

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

Response: 10.02

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

2016-17	2015-16	2014-15	2013-14	2012-13
11	14	10	10	8

File Description	Document
List of number of full time teachers with PhD and number of full time teachers for 5 years	View Document

2.4.3 Teaching experience per full time teacher in number of years

Response: 47.66

File Description	Document
List of Teachers including their PAN, designation,dept and experience details	View Document

2.4.4 Percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the last five years**Response:** 35.85

2.4.4.1 Number of full time teachers receiving awards from state /national /international level from Government recognised bodies year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
17	5	8	5	3

File Description**Document**

Institutional data in prescribed format

[View Document](#)**2.4.5 Average percentage of full time teachers from other States against sanctioned posts during the last five years****Response:** 26.06

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

2016-17	2015-16	2014-15	2013-14	2012-13
25	28	25	29	32

File Description**Document**

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

[View Document](#)**2.5 Evaluation Process and Reforms****2.5.1 Reforms in Continuous Internal Evaluation(CIE) system at the institutional level****Response:**

The Institute meticulously plans Continuous Internal Evaluation process in every academic semester. The syllabus scheme of University of Mumbai reflects the continuous assessment in different heads of passing like term work, internal assessment, project work, practical and oral etc.

The institute dynamically reforms certain aspects of the Continuous Internal Evaluation based on the heads

of passing. Depending on the course, tutorials/practicals, assignments or both are conducted at regular intervals and evaluated. Following are some of the reforms in CIE:

1. Tutorials and Practicals are evaluated based on a total of five marks each; for the performance of students and the degree of meticulousness in maintaining of their record. This feature has been included in the faculty handbook and while assigning/evaluating students performance a common practice is followed throughout the institute and marked in handbook. Weekly practical/tutorial is performed by students and the performance is recorded based on their participation, output, discipline, lab ethics, punctuality etc.
2. Another reform is in introducing the Test Booklets which students use for answering their Internal tests and act as a record for every student's internal test performance. Internal tests are conducted twice a semester with the total of 15 or 20 marks depending on the course. The evaluated answer booklets are shown to the students for helping them analyse their errors and in improvement.
3. Conduction of midterm submission is another reform brought about in the institute to keep a track over students' punctuality, get the status of tutorials/ practicals performed by the students and also help them finish their tutorials/practicals in time before the final submission.
4. Innovative assignments and assignment methods are followed in the Institute such as class assessment, weekly assignment, home assignments, group assignments, online quiz, etc. to aid in the enhancement of learning ability of students and ease in evaluating them.
5. Based on weaker performance of students in certain courses, preliminary examinations are also conducted and students are evaluated to help them prepare for their final examination.

Thus a robust system is developed ensuring regular monitoring and CIE at SIESGST.

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

Response:

The University of Mumbai has implemented the pattern 80:20 from AY 2012-13 in the credit based semester grading system. The internal tests, also considered as internal assessment, are conducted twice in the semester having a weightage of 20% for the course and the remaining 80% being the end semester examination. The first internal test is based on 40% of the syllabus and second test on the next 40% of the syllabus.

The frequency of the tests is decided in the Academic Council meeting. The first test happens within 45 days of college reopening in such a way that at least 40% syllabus should have been covered in the class and the second tests is after the last instructional day. The academic calendar finalized by the academic council lists the dates for these internal tests at the beginning of the semester for the faculty to plan the course conduction.

The solution of the test along with question wise marking scheme is displayed on notice board within an hour after the test to maintain transparency and uniformity in the assessment of the internal tests. In certain cases, the solution keys are also shared with students through email or faculty website. The evaluated test

booklets are shown to the students and individual discussion/clarification with a student on the paper is taken up if required by the student.

In some of the courses, University has also given liberty to the course instructors to take orals, innovative assignments projects, case studies instead of one of the internal test. The term work is a part of continuous assessment where students are being evaluated on the basis of their performance in different activities throughout the semester.

With these systems in place, SIESGST very well exhibits transparency in the mechanism of internal assessment and robustness in terms of frequency and variety.

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

Response:

A transparent and efficient method is being followed in SIES GST in terms of dealing with examination related grievances. After declaration of result, aggrieved students apply for photocopy of answer-sheets and for redressal of grievances within a specified period.

1. Revaluation: The grievances with respect to evaluation are invited within 10 days after the declaration of University results called as revaluation process. All the answers sheets claimed by the students for revaluation will be reassessed by the examiners from other colleges who are approved examiners by University of Mumbai. While allotting these papers to the examiners, care is taken to hide all the previous marks given, to avoid biased evaluation.

Therefore this is considered as a completely fresh and transparent assessment. The result after revaluation are displayed on the college notice board and updated into the original result gazette.

2. Photocopy: Grievances on marks given are invited within 10 days after the declaration of the University results. After receiving application, photocopy of the answer sheet is distributed to the students within 10 days, wherein, if student finds any discrepancy, he / she can apply for necessary correction with no extra charge.

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

Response:

The Academic Council meets in the beginning of every semester for the preparation of the Academic Calendar. The inputs for the start and the end dates of the semester are taken from the Academic Calendar provided by the University of Mumbai.

The frequency of the two internal tests is decided in the Academic Council meeting. The first test is planned within 45 days of college reopening in such a way that at least 40% syllabus should have been covered in the class and the second test is after the last instructional day. In considering the dates for these

tests, the following points are considered:

1. Whether to have 1 paper or two papers on a day.
2. Sequencing of the papers is based on subject difficulty level.
3. Public holiday in between papers.
4. Gap to be given between papers (especially before papers considered difficult).
5. Any of the college events before or after the exams.

Based on the schedule of the tests, the dates for result declaration are also mentioned in the Academic Calendar for the faculty to plan his / her assessment schedule.

In certain cases the assignment weeks are also mentioned in the Academic Calendar to be followed by all the departments in the Institute.

The academic calendar also includes the dates of midterm, final submissions and the date for commencement of Practical/Oral exams. The midterm/final submission dates enable the students to be ready with their course / lab manuals / files to aid in CIE and timely & efficient submissions.

The Academic Calendar is then approved by the members of the Academic Council and circulated by the Principal to all the departments. The same is also attached to the faculty handbook and is strictly adhered to. Any change in the calendar during the semester, owing to any unforeseen circumstances, is approved by Principal and communicated to all the faculty members.

2.6 Student Performance and Learning Outcomes

2.6.1 Program outcomes, program specific outcomes and course outcomes for all programs offered by the Institution are stated and displayed on website and communicated to teachers and students

Response:

The Course outcomes of all courses offered are prepared by the respective course instructor at the start of the semester and uploaded on the college website. The program outcomes and program specific outcomes are also uploaded on the college website on respective department webpage. The Course outcomes are mapped to Program Outcomes and Program Specific Outcomes and maintained in the course file by respective teacher.

COs are continuously assessed during the semester using various assessment techniques like unit test, assignment, class test, lab assignment, lab experiment, project evaluation, etc. The assessment questions given in tests are mapped to COs and the student scores of these test questions are used to calculate attainment level of the COs.

File Description	Document
COs for all courses (exemplars from Glossary)	View Document
Link for Additional Information	View Document

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

Response:

SIESGST follows a systematic process of measuring attainment levels of program outcomes (PO) , program specific outcomes(PSO) and course outcomes(COs).

Attainment of Course Outcomes

Course outcomes are learning goals that a student is expected to learn at the end of the course. The subject teacher maintains a teaching plan in which around six CO are written, which are measurable, precise and maps across all cognitive levels of Bloom's taxonomy.

COs are continuously assessed during the semester using various assessment techniques like unit test, assignment, class test, lab assignment, lab experiment, project evaluation, etc. The assessment questions given in tests are mapped to COs and the student scores of these test questions are used to calculate attainment level of the COs.

To calculate attainment level, targets are set based on actual number of students getting set percentage of marks. Attainment levels are set against this target, for example

Attainment level 1: 60 % of students scoring more than 50% marks in the unit test.

Attainment level 2: 70 % of students scoring more than 50% marks in the unit test.

Attainment level 3: 80 % of students scoring more than 50% marks in the unit test.

For example, in Q1of unit test, 70% students have scored more than 50% marks, then attainment level of the Q1 is calculated as 2. If Q1 is mapped to CO1 in that subject then attainment level of CO1 is assessed as 2. The attainment level of each CO is average of attainment levels mapped and assessed using various tests.

Attainment level of PO/PSOs

PO/PSOs are skills which a student should acquire at the end of four years of engineering studies. These skills are acquired through various courses and activities taken in department.

Each CO in a given course is mapped to PO/PSOs using CO-PO matrix as shown in figure 1.

	PO1	PO2	PO3	PO4	PO5	PO6..	PO12
C202.1	3						

C202.2		3		1			
C203.3	2						
..							
C203.n							

Figure 1. Mapping of PO to CO using correlation levels 1, 2, or 3, where levels are defined as

1: slight(low) 2: Moderate (medium) 3: Substantial (high)

Attainment level of each CO is used to calculate attainment level of its corresponding mapped PO/PSO using CO-PO attainment level table as shown in figure 2.

	PO1	PO2	PO3	PO4	PO5	PO6..	PO12
C202.1	2						
C202.2		3		1			
C203.3	3						
..							
C203.n							
Average attainment level	3	3		1			

Figure 2. CO-PO attainment level

Finally a consolidated table is used to calculate attainment level of each PO/PSO across all courses from first year to final year department wise. The consolidate table is as shown in figure 3.

	PO1	PO2	PO3	PO4	PO5	PO6..	PO12
C101	2						
C202		3		1			
C301	3						
..							
C4..							
Average attainment level	3	3		1			

Figure 3. Consolidate PO attainment level.

Thus we plan and follow a systematic process of calculating attainment level of PO, PSO, and CO via internal assesment tecniques like unit test, assignment, seminars, project, etc.

2.6.3 Average pass percentage of Students

Response: 93.36

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

Response: 2110

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

Response: 2260

File Description	Document
Institutional data in prescribed format	View Document

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response: 2.9

File Description	Document
Database of all currently enrolled students	View Document

Criterion 3 - Research, Innovations and Extension

3.1 Resource Mobilization for Research

3.1.1 Grants for research projects sponsored by government/non government sources such as industry ,corporate houses, international bodies, endowment, chairs in the institution during the last five years (INR in Lakhs)

Response: 3.47

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

2016-17	2015-16	2014-15	2013-14	2012-13
1.37	1.70	.3	0	.1

File Description	Document
List of project and grant details	View Document

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

Response: 0.02

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

Response: 13

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

3.2 Innovation Ecosystem

3.2.1 Institution has created an ecosystem for innovations including incubation centre and other initiatives for creation and transfer of knowledge

Response:

At SIES GST, the students are encouraged to apply their engineering knowledge and skills to find solutions for various day-to-day problems which will help to build a better world for the future. This is fostered through active professional student chapters and the entrepreneurship development cell (EDC).

Every department conducts interactive sessions for the students by industry experts and also hosts national level events like project competitions, technical paper presentations, technical quiz, exhibitions and technical debates to identify good innovators and nurture their ability to generate creative practical solutions to new problems.

The innovation ecosystem is further strengthened by EDC of SIES GST started in the year 2011 to encourage the students to innovate, promote innovation and entrepreneurship. It enables students to overcome the knowledge barriers, and provides necessary support which teaches them how to transform good ideas into actionable plans and bring those ideas to market. It gives students a platform to improve their presentation skills, meet young thinkers and established entrepreneurs to get a feel of how to go about making their own path. Regular visits are also organized to business incubators to understand how the start-up's work.

To promote innovation, the cell conducts an innovative idea/project competition on engineer's day where the budding engineers are given a platform to showcase their ideas. Young entrepreneurs and CEOs are regularly invited to the campus to connect with budding entrepreneurs through Panel discussions and seminars and talks.

The institute has also set up an innovative robotics lab under the e-Yantra initiative, IIT Bombay, which is well equipped and used to develop innovative solutions to real world problems using embedded systems. Some of innovative projects developed here are the Wireless Robot Navigation over Obstacle course, Gesture controlled Human Machine Interface (chosen as the most innovative project at a national level symposium organized by SINE incubator) and Home Automation for physically challenged.

The students are also encouraged to provide innovative solutions to in-house problems. Some of them are the conductive ink which was developed in-house by our student for attractive displays, Paperless registration App for events, college website development, and other learning management systems.

The institute also encourages students to associate and contribute to Facebook and Google developer circles to learn directly from the experts. Events like Hackathon are organized for the students to encourage them to develop demonstrate disruptive digital technology solutions to solve challenges faced by the people.

The institute also gives recognition for student innovations in the form of most enterprising student awards every year.

Several initiatives which were idealized by the institute to provide an ecosystem to promote innovation and entrepreneurship are being realized now. The institute is planning to offer value added course in entrepreneurship, innovation, IPR and many more in the coming years. The institute is also collaborating with incubation centres to host start-ups of our students. Hope all this together will nurture critical thinking, creativity and scientific temper among the students to transform them in to life-long learners and innovators.

3.2.2 Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the last five years**Response:** 47**3.2.2.1 Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices year-wise during the last five years**

2016-17	2015-16	2014-15	2013-14	2012-13
14	16	07	07	03

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

3.3 Research Publications and Awards**3.3.1 The institution has a stated Code of Ethics to check malpractices and plagiarism in Research****Response:** Yes

File Description	Document
Institutional data in prescribed format	View Document

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

File Description	Document
List of Awardees and Award details	View Document
e- copies of the letters of awards	View Document

3.3.3 Number of research papers per teacher in the Journals notified on UGC website during the last five years**Response:** 0.05**3.3.3.1 Number of research papers in the Journals notified on UGC website during the last five years**

2016-17	2015-16	2014-15	2013-14	2012-13
4	7	9	2	3

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

3.3.4 Number of books and chapters in edited volumes/books published and papers in national/international conference proceedings per teacher during the last five years

Response: 0.23

3.3.4.1 Total number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
30	19	20	16	33

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

3.4 Extension Activities

3.4.1 Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the last five years

Response:

SIESGST believes in the holistic and all-round development of its students. To facilitate this ambition, a variety of avenues have been set up to aid the students in fulfilling their potential in the academic, co-curricular and extracurricular arenas.

SIESGST has a very active National Service Scheme (NSS) unit, which serves as a platform for students to address many social issues of great importance. The NSS unit organises various street plays that speak to large audience about topics such as waste management, mental healthcare, saving the girl child and prevention of female infanticide, the importance of blood donation and more. These informative sessions are then put into practice in the various initiatives and drives managed by the NSS, such as the annual Blood Donation Drive, Swach Bharat drives, tree plantation initiatives and the compost pits managed by the NSS unit that recycle campus waste on site. The NSS unit also contributes to the Institute's Social

Responsibility (ISR) by teaching underprivileged children.

Dream Run, a highly successful 6km charity-marathon through the town of Nerul is organised by the Student Council (SC) and the NSS in partnership with various reputable NGOs every year. All the proceeds from these marathon runs are donated to the partner NGOs helping rehabilitate disabled soldiers, aiding Autistic community, assisting Camp Karma for burn victims, KEM Hospital and the NAAM foundation.

Utmost importance is given to celebrating the national festivals of Republic Day and Independence Day, where the NSS unit, and the Student Council of the college work in unison to organise programs that celebrate our country and keep the spirit of patriotism alive in the students of our college, whilst also shedding some light on the social issues plaguing the society.

The Student Council, along with WDC organises many activities that have an important social bearing. These include celebrating Women's Day, Teacher's Day, campaigns against the harassment of women, literacy drives, etc. Socially relevant celebrations such as Marathi Bhasha Diwas, International Yoga Day and Vijay Diwas are also organised with gusto. The WDC also regularly invites women achievers to inspire the students of our college, and organises self defence workshops to inculcate an independent sense of self-reliance within our female students.

Throughout the year, several motivational and awareness seminars and sessions are organised to help the students keep their spirits up and while keeping them engaged in their academics and deal with issues such as time management, nutrition and diet planning, hypertension and physical and mental health and upkeep.

With the help of the several professional student chapters established at the institute, many technical workshops such as a robotics Workshop, Rubik's cube competitions, quiz events such as P-pack junior for school children, are organised.

SIES GST proudly hosts it's very own TEDx event, TEDxSIESGST: an annual conference on discussing ground breaking new ideas and innovations lead by local voices speaking to a global audience. This multidisciplinary event helps enrich the lives of our students and the local community, and contributes to the global conversation.

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

Response: 11

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

2016-17	2015-16	2014-15	2013-14	2012-13
03	04	01	01	02

File Description	Document
Number of awards for extension activities in last 5 years	View Document
e-copy of the award letters	View Document

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

Response: 124

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

2016-17	2015-16	2014-15	2013-14	2012-13
25	30	17	28	24

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

3.4.4 Average percentage of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the last five years

Response: 26.74

3.4.4.1 Total number of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
430	463	586	311	646

File Description	Document
Average percentage of students participating in extension activities with Govt. or NGO etc.	View Document
Any additional information	View Document

3.5 Collaboration

<p>3.5.1 Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc during the last five years</p> <p>Response: 252</p>														
<p>3.5.1.1 Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc year-wise during the last five years</p> <table border="1"> <thead> <tr> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> <th>2012-13</th> </tr> </thead> <tbody> <tr> <td>20</td> <td>31</td> <td>26</td> <td>63</td> <td>112</td> </tr> </tbody> </table>					2016-17	2015-16	2014-15	2013-14	2012-13	20	31	26	63	112
2016-17	2015-16	2014-15	2013-14	2012-13										
20	31	26	63	112										
<table border="1"> <thead> <tr> <th>File Description</th> <th>Document</th> </tr> </thead> <tbody> <tr> <td>Number of Collaborative activities for research, faculty etc.</td> <td>View Document</td> </tr> <tr> <td>Copies of collaboration</td> <td>View Document</td> </tr> </tbody> </table>					File Description	Document	Number of Collaborative activities for research, faculty etc.	View Document	Copies of collaboration	View Document				
File Description	Document													
Number of Collaborative activities for research, faculty etc.	View Document													
Copies of collaboration	View Document													
<p>3.5.2 Number of functional MoUs with institutions of National/ International importance, Other Institutions, Industries, Corporate houses etc., during the last five years (only functional MoUs with ongoing activities to be considered)</p> <p>Response: 12</p>														
<p>3.5.2.1 Number of functional MoUs with institutions of national, international importance, other universities, industries, corporate houses etc. year-wise during the last five years (only functional MoUs with ongoing activities to be considered)</p> <table border="1"> <thead> <tr> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> <th>2012-13</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>4</td> <td>2</td> <td>1</td> <td>0</td> </tr> </tbody> </table>					2016-17	2015-16	2014-15	2013-14	2012-13	5	4	2	1	0
2016-17	2015-16	2014-15	2013-14	2012-13										
5	4	2	1	0										

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 universities etc. during the last five years	View Document

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

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

Response:

All the norms specified by the AICTE for teaching-learning facilities are scrupulously observed at the GST and the same is described here. The campus of GST is spread in the area of 24795.64 sq. m. with the total constructed area of 15113.82 sq. m. The college campus has sufficient space for all academic, administrative, co-curricular and extra-curricular activities. The state-of-the-art infrastructure provides a rich learning environment that aggrandizes interest in teaching learning. To facilitate learning for students, the institute has 26 classrooms, 07 tutorial rooms and 01 drawing hall with enough ambience and comfortable seating arrangement. Seminars, workshops and training programs conducted for students are arranged in the seminar hall/laboratories depending upon the number of students. Three seminar halls are air-conditioned, have ICT facility for audio-visual presentation. Apart from the regular blackboard, each classroom is fitted with LCD projector and is Wi-Fi supported that enables the faculty to use ICT for effective teaching.

In GST each department has a sufficient number of laboratories those are spread over the area of 4160.38 sq. m. All the laboratories are well equipped with necessary experimental setups of excellent quality with an overall investment of more than 10 crores. Every laboratory is provided with a whiteboard for teaching and a soft board for display of instructions and lab information. Every laboratory has a provision to connect portable projectors as and when needed by the faculty. Some of the major laboratory equipment that can be listed are NI lab view, vibrometer, CNC lathe, CNC milling, microwave bench, Blown film extrusion, Offset printing machine, Injection and blow moulding machine.

Institute has a well set up central computing facility (CCF) in the area of 154 sq. m. where students, as well as faculty, can avail the facility of internet and audio-visual aids. CCF houses 72 Dell latest configuration computers with Windows as well as Ubuntu operating system. A 155 MBPS leased line connects more than 500 computers in the campus through LAN. The entire campus is Wi-Fi enabled and connectivity is provided to students and faculty on their laptop.

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

Response:

The GST campus has been designed with the perspective of the all-round development of students in mind. A variety of state-of-the-art facilities have been provided to students to ensure that they can engage in sporting activities and exercise within the college campus.

- The GST Gymnasium is equipped with treadmills, exercise balls and cycle which is staffed by professional trainers and is open throughout the day for students' use.
- A yoga centre is located on campus and plays host to the college "Yoga Day" celebrations.

- Facilities for indoor sports such as table tennis, chess and carom have been provided with easy access to students and allow the college to host intercollegiate competitions for these sports.
- A basketball hoop is situated on campus and basketballs are available for students to play in their free time, and practice for intercollegiate and university competitions.
- The necessary cage and other equipment to play “Cage Football” and “Cage Cricket” is also available, and is set up in the ample quadrangle space whenever matches for the same are scheduled by the sports team. Students can also play badminton in their spare time for which the rackets and shuttlecocks are readily available.
- The college takes necessary permissions from nearby schools that enable students to use the school grounds after hours to play sports such as football and cricket.
- Under the sports festival organized by the college, multiple intercollegiate events are organized and the necessary facilities are made available to accommodate the participants.
- Grounds from across the city are rented as required by the sports team of the student council and all necessary amenities are provided for the same.

The college believes that a good technical education is enhanced with grounding in culture and arts. These vital extra-curricular skills are developed by the various ‘college clubs’ in the fields of dramatics, music, dance and more. Ample space for dance rehearsals, drama practice and art and craft creative activities is provided in floor space above the canteen, and the vast boys’ common room and girls’ common room situated near the gymnasium.

The campus has seminar halls and open area with varying audience capacities that are made available to the students for various cultural activities, programs and functions. GST also has a seminar hall of bigger capacity which can accommodate 150 attendees and plays host to all primary functions and festivities organized within the college. It is equipped with a stepped seating arrangement that is available to the students for debates and other activities. For larger gatherings, the college has ample open-air space in the quadrangles. Centered in the middle of the buildings, this area is used for dance and street-play performances, festival launches, inaugurations and a variety of other activities. The college campus also contains amphitheatre, ideal for open-mic nights, plays and other cultural activities. The college also organizes many intercollegiate cultural events such as fashion shows, dance competitions and more. These large-scale events that witness huge audiences are conducted in the vast lawns available on campus.

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

Response: 41.38

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 12

File Description	Document
Number of classrooms and seminar halls with ICT enabled facilities	View Document

4.1.4 Average percentage of budget allocation, excluding salary for infrastructure augmentation

during the last five years.

Response: 17.37

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

2016-17	2015-16	2014-15	2013-14	2012-13
18	20	20	625	100

File Description	Document
Details of budget allocation, excluding salary during the last five years	View Document
Audited utilization statements	View Document

4.2 Library as a Learning Resource

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

Response:

At SIESGST, the library is automated using the e-Granthalaya Integrated library Management software (ILMS), version 3.0 (Rev No. 26 released in 2007) designed by NIC, New Delhi .

All library books are bar-coded and a hand held scanner is used as a means of automation for issue and receipt of books. This system is compatible with a fully automated e-Granthalaya ILMS. This software is useful for automation of in-house library activities as well as to provide various services to users over the network. The software provides built-in web Online Public Access Catalogue (OPAC) interface which helps the users to search library catalogue anywhere on the intranet. It is UNICODE compliant thus, supports data entry in local languages also. The software has various modules such as Admin, Book acquisition, Cataloguing, Circulation, Serials, and Micro documents, Budgets and Search.

The Admin modules help in having control over system data, master data and data base utilities such as backup and recovery.

The book acquisition menu is useful in adding the new title entry, duplicate checking, generating the order, receiving documents and accessioning the entry of new books.

The cataloguing part helps in retro conversion, full cataloguing of book entry, changing the copy status of books (available/ weed out/ misplaced) and generating barcode labels as per requirements.

The circulation module is useful in having control over the registration of new members' details into the library software. Identity cards issued to every student by the college have been interfaced with library

software to check in, checkout and renew books. The software helps in generating the list of over dues, list of most issued books, list of top borrowers and computing the circulation transactions.

The serial module helps in adding the new journal title entry, duplicate checking, generating the order, receiving journal issues and sending reminders to subscription vendors. Budget menu is useful in maintaining various account heads for books and periodicals, e-books and capital budget.

The search menu helps the library staff in searching the books, generating list of new inclusions and accession register of books as per requirement.

This ILMS software has eased the day to day activities in the library and also provided easy access to large database of books to the users.

File Description	Document
Any additional information	View Document

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

Response:

Apart from books recommended in the syllabus, the library also emphasizes on other standard books required for supporting academic contents. It includes handbooks, manuals, reference books and encyclopaedia. The central library also houses books which are used to prepare for competitive examinations like GATE, civil service and other Public Service Undertaking exams.

A separate section is dedicated to books on aptitude, reasoning, soft skills and personality development. Famous books on general topics authored by renowned personality are also available in the library for the enrichment of knowledge.

File Description	Document
Any additional information	View Document

4.2.3 Does the institution have the following:

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

Response: B. Any 3 of the above

File Description	Document
Details of subscriptions like e-journals,e-ShodhSindhu,Shodhganga Membership etc.	View Document

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

Response: 27.09

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

2016-17	2015-16	2014-15	2013-14	2012-13
37.44	27.99	26.54	26.19	17.29

File Description	Document
Details of annual expenditure for purchase of books and journals during the last five years	View Document
Audited statements of accounts	View Document

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

Response: No

File Description	Document
Details of remote access to e-resources of the library	View Document

4.2.6 Percentage per day usage of library by teachers and students

Response: 3.6

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

Response: 70

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 frequently updates its IT facilities including Wi-Fi

Response:

The institute has always given priority for up-gradation of IT facilities. Regular updating is done in facilities at institute level as well as department level. The description of the same is provided in below paragraphs.

The institute regularly updates the internet connection every year and as of now, the available internet bandwidth is 155MBPS that was latest renewed in 2017. GST uses firewall service from Cyberoam and the support license was latest renewed in 2017. Software, licences for antivirus, networking server, networking components, AMC etc. are renewed regularly as and when necessary. The audio-visual setup enables the institute to often arrange workshops conducted by IITs via video conferencing. The equipment of audio-visual setup was upgraded in 2015. Institute has various software that arises used for the academic purpose which includes Oracle, Flash Pro, Photoshop, MATLAB, Microwind, NetSim, IE3D, Xilinx ISE, Proteus VSM, Orell, Creo, ANSYS, autoSIM, DOE++, AutoCAD and SolidWorks apart from basic software like Office, Ubuntu, Tally etc.

The institute purchases printers in every financial year either to use upgraded versions of printers or to add new printers. Upgrading of IT is seen in teaching learning process as OHPs in the institute have been intermittently replaced by LCD. The institute also has a plotter which can accommodate paper of A3 size. Computers in the institutes are upgraded every year by replacing certain old machines with the new ones.

4.3.2 Student - Computer ratio

Response: 2.92

File Description	Document
Student - Computer ratio	View Document

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

Response: >=50 MBPS

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

4.3.4 Facilities for e-content development such as Media Centre, Recording facility, Lecture Capturing System (LCS)

Response: No

File Description	Document
Facilities for e-content development such as Media Centre, Recording facility,LCS	View Document

4.4 Maintenance of Campus Infrastructure

4.4.1 Average Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, as a percentage during the last five years

Response: 15.35

4.4.1.1 Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component year-wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
161	174.46	128.6	167.91	92.6

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 institute has maintenance system for all essential available facilities. Maintenance is carried out throughout the year and as and when required.

Institute has appointed external agencies for maintenance of infrastructure, equipment and other facilities such as lifts, fire extinguishers, fire systems, generator, UPS, air conditioners, water purifiers, water coolers, photocopy machines, laboratory equipment, computer systems. Some of them are maintained through an annual maintenance contract.

To maintain internet connectivity and CCTV security system, GST has a team working under the network and system administrator. For electrical repairs, the institute has a regular electrician on campus. For other repairs and maintenance, there is a set procedure that is followed by the institute. The request for repairs and maintenance is entered in a register at the Institute level which is then discussed by the administrative staff with the HOD and the Principal. Minor repairs of the equipment, computers etc. are done in-house by the technical staff. For maintenance by an external agency, quotations are called from multiple vendors and finalised by the purchase department. The purchase requisitions are raised by the departments followed by

purchase orders, invoice preparations etc.

For major civil works the estate committee, consisting of the Head of the Institute, estate manager and management representative decides the course of action.

Maintenance of different facilities:

Cleaning and sweeping:

An authorised agency has the annual contract of cleaning and sweeping of the passages, classrooms, washrooms, lifts, surroundings etc. The office staff monitors their work and related maintenance issues.

Network system:

The Institute has a team of qualified people under the CIO and network administrator for maintaining computer systems, software, licences etc. and networking facilities like WI-FI & LAN.

Electrical maintenance:

The activities related to maintenance of electrical fittings, public address system, diesel generator, pump room etc. are supervised and done by Institute's electrician.

Air conditioner and water cooler:

The Institute has a dedicated resident engineer available on the campus.

Fire safety

Annual inspection and updating in fire safety are done from the external agency by the estate manager.

Water purifier:

The equipment maintenance is done by the authorised agency with which the institute has an annual maintenance contract.

Overhead and underground water tank:

The estate manager takes care of the cleaning of the overhead and underground tanks regularly on-call basis.

Garden:

All gardening activities on the campus like cutting, cleaning, watering, soiling etc. are handled by the contract employee.

Lift:

Institute has an annual maintenance contract with the authorised agency.

Security

An authorised security agency has the annual contract for ensuring safety on the campus.

Sports Equipment

Every year new sports equipment are purchased as per the requirements.

Thus a smooth, systematic and orderly learning environment is ensured with the existing maintenance procedure.

Criterion 5 - Student Support and Progression

5.1 Student Support

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

Response: 10.09

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

2016-17	2015-16	2014-15	2013-14	2012-13
261	176	156	176	157

File Description

Document

Upload self attested letter with the list of students sanctioned scholarships

[View Document](#)

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

[View Document](#)

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

Response: 4.77

5.1.2.1 Total number of students benefited by scholarships, freeships, etc provided by the institution besides government schemes year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
145	126	68	50	50

File Description

Document

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

[View Document](#)

Any additional information

[View Document](#)

5.1.3 Number of capability enhancement and development schemes –

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

Response: A. 7 or more of the above

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

5.1.4 Average percentage of student benefited by guidance for competitive examinations and career counselling offered by the institution during the last five years

Response: 42.04

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

2016-17	2015-16	2014-15	2013-14	2012-13
756	850	864	758	638

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

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

Response: 12.3

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

2016-17	2015-16	2014-15	2013-14	2012-13
395	288	103	131	207

File Description	Document
Details of the students benefitted by VET	View Document

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

Response: Yes

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

5.2 Student Progression

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

Response: 64.45

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

2016-17	2015-16	2014-15	2013-14	2012-13
254	302	290	258	239

File Description	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: 9.75

5.2.2.1 Number of outgoing students progressing to higher education

Response: 46

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

5.2.3 Average percentage of students qualifying in State/ National/ International level examinations during the last five years (eg: NET/ SLET/ GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil Services/State government examinations)

Response: 95.83

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

2016-17	2015-16	2014-15	2013-14	2012-13
89	82	85	65	53

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

2016-17	2015-16	2014-15	2013-14	2012-13
91	90	86	65	58

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

5.3 Student Participation and Activities

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

Response: 63

5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one) year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
15	18	12	6	12

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

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

Response:

The institute has a very active Student's Council (SC), formed by a well-established process.

The process starts with inviting applications from the students for the various posts of SC. It consists of **President, Secretary, Technical Secretary, Sports Secretary, NSS representative, Ladies representative, Class representatives, HOD Nominees and Student chapter representatives.**

The Class Representatives from each is selected based on academic merit in the preceding examination. HOD Nominees from each Department are from final year. At GST, every department has a professional student chapter -IETE,IEEE,CSI,IPI, SAE and ISHRAE. A selection committee comprising of Principal, HoDs and the SC In-charge is formed for the selection of the Technical, Cultural & Sports Secretary from final year and the Ladies and NSS representative from the third year through an interview. The core council formed by the above members elect the General Secretary and the President. Students with live KT and students against whom any disciplinary action is pending are not allowed to apply for any of the posts. The 50 member SC thus formed, has representation from all the departments and together they act as a link between the students and the management.

To ensure proper handing over of responsibilities from the previous council, the formation is done at the end of the academic year. The new council takes charge from the beginning of the new academic year.

The SC also forms various dedicated teams for tasks such as - Marketing, Public Relations, Logistics, Sponsorship generation, Social Media Management, Multimedia Editing and Photography based on the students' interests. This helps the students to gain first hand expertise and a better understanding of these fields. Several clubs such as music dramatics, literary, robotics also work along with SC.

The SC along with professional chapters and NSS plan & organize all the extracurricular events and

prepare an event calendar. All the events are organized as per the standard procedure set by the institute.

Alongside organizing the college festivals and a plethora of workshops and skill development sessions across the academic calendar, the members also play a vital role in various institute level committees like the college women development cell, anti ragging committee, and IQAC committee. They are involved in all the activities that define the life of a student at GST. Right from the orientation of the First year engineering students, to the farewell of the Graduating students, the council plays an integral part in the organization and execution of these activities.

The college allocates significant funds for the smooth conduction of all the major activities. Students are also involved in making a detailed budget and market their various events to procure funds. The college annual festival – Tatva Moksh Lakshya is very heavily dependent on the marketing done by the SC.

Involving the students in various administrative bodies has made them more responsible and strengthened their bonding with the institute and this has resulted in many of them coming back to contribute to their alma mater.

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

Response: 72

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

2016-17	2015-16	2014-15	2013-14	2012-13
92	80	62	76	50

File Description

Document

Number of sports and cultural activities / 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 non financial means during the last five years

Response:

ReConnect is SIES GST's Alumni Association registered in the year 2012, which provides a platform for the ex-students to interact with the Institute. Re connect has led to a closely knit community which promotes, supports and inspires current and future alumni of the college in their future endeavours.

Reconnect is the annual gathering of SIES GST Alumni, which is held on the first Saturday of January every year.

Being institution's most loyal supporters who shape the future of the college in a pivotal manner, ReConnect helps the alumni to engage with the students and staff on a regular basis. Regular workshops, seminars are conducted by alumni. Some of them are workshops on 'Basics of Python, PHP-SQL' for the Second and Third Year, Ethical hacking, Adobe Photoshop, Data science for Engineers, IOT in Robotics and seminar on Facebook developer products like Android, Web, Open Source Hardware and Artificial Intelligence. Alumni have also been helping students with website coding and app development.

They have been also been contributing to the extracurricular activities by judging various competitions during annual festivals and by mentoring the members of the dramatics club, music club and the dance group to improve their performance in competitions. They have also been actively contributing to the NSS unit and have accompanied students for the NSS camp.

MasterClass, was a series of interactive learning sessions for students by the bigwigs of the Printing & Packaging Industry (PPT), initiated by a PPT Alumnus in collaboration with PrintWeek India Magazine. Through this association, 'Seekho aur Samjho' (SaS) workshops were also devised and conducted for shop-floor supervisors, faculty and students, in collaboration with Bombay Master Printer's Association (BMPPA) to share the latest industry trends and developments. Yet another contribution is the Exhibition of award winning print samples which is organized in collaboration with PrintWeek India. The alumni have also contributed significantly towards the recruitment and internships of PPT students.

The alumni who have shaped themselves into successful entrepreneurs, have been regularly contributing to the Entrepreneurship Development Cell (EDC) by conducting workshops on writing 'Business Plans', how to attain business goals and other miscellaneous topics pertinent to enterprises. They have also been mentoring students of the EDC and have arranged for internships for students in their company on various occasions.

In terms of financial contribution, every year the alumni association sponsors Special Awards which are given to the students for their exceptional contribution in the field of sports, technical, academics and for being most enterprising student and one for being an all rounder. The association had also initiated a scholarship to merit-cum-needy students. The college magazine also features writings by the alumni.

Some of the alumni are members of Department Advisory Board (DAB) and other advisory committees. An alumni committee has been set under the leadership of a senior faculty member to work closely with the Alumni and to ensure strong and productive relationships with the Institute and to implement alumni programs that support the Institute's strategic plan.

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

Response: 1 Lakh - 3 Lakhs

File Description	Document
Any additional information	View Document
Alumni association audited statements	View Document

5.4.3 Number of Alumni Association / Chapters meetings held during the last five years

Response: 5

5.4.3.1 Number of Alumni Association /Chapters meetings held year-wise during the last five years

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

File Description	Document
Number of Alumni Association / Chapters meetings conducted during the last five years.	View Document

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:

Efficient and Effective functioning of an institution can be benchmarked by the policies and practices it has derived in the following areas of governance:

1 Value addition in Education and Technologies

2 Blueprint of Development and Deployment

3 Faculty Empowerment Strategies

4 Financial Management

5 Socio Economics commitments.

6 Entrepreneurship Development

7 Quality assurance

8 Human resource management

The governing board comprises of distinguished administrators, academicians and faculty representatives. It is the visionary leadership of Governing Board Members and Principal that the college has developed a culture of excellence, dedication, hard work and selfless services which gives continual improvement in the functioning of SIES Graduate School of Technology (GST).

The Vision-Mission has been set up to make the institution the most favorable and promising place to achieve technical competence and research. The Institution works on four pillars of philosophy viz. academic excellence, professional competence of students, social commitment and innovation & research

The governing board and the Principal have frequent meetings where plans are made in compliance with the stated Vision and Mission. The college has constituted several committees where the HODS, faculty, non-teaching staff and students play an important role in the planning and implementation of activities in different spheres of Institutional functioning.

Each committee constitutes the faculty coordinator and members as the decision making body, leading to effective leadership in tune with vision and mission of the college.

Following are the various committees, responsible for planning and execution of various activities.

Sr. No.	Name of the committee	Sr. No.	Name of the committee

1	Anti Ragging Committee and Discipline committee	20	Skills Development Committee
2	Anti Ragging Squad	21	Innovation club
3	Grievance Redressal	22	Technical Committee
4	Internal Complaint Committee	23	Unnat Bharat/ Unnat Maharashtra Abhiyan
5	Women Development Cell	24	IT Cell
6	Standing Committee for SC/ST	25	NSS Committee
7	IQAC	26	Swatch Bharat Abhiyan Committee
8	College Academic Council	27	ISR Committee
9	Student welfare Committee	28	Disaster Management Committee
10	Admission Committee	29	Attendance Committee
11	Training & Placement Cell	30	Time Table Committee
12	Industry Institute Interaction Cell	31	Examination Committee
13	Entrepreneur Development Cell and incubation	32	Internal Test Committee
14	Career Development Cell	33	Session Plan Coordination Committee
15	Alumni coordination Committee	34	Library Committee
16	NAAC Committee	35	MIS and Publicity Cell
17	NBA Committee	36	Canteen Committee
18	Professional Body Coordination Committee	37	PTA
19	R & D Cell	38	ISTE Faculty Chapter

File Description	Document
Any additional information	View Document

6.1.2 The institution practices decentralization and participative management

Response:

For the acquisition of goods and services, including requisition preparation, funds approval, payments to suppliers, and follow-up inquiries, college practices decentralization by providing operational autonomy to the departments. Purchase of equipments and consumables is exclusively decided by the respective subject faculty of the department as they have been given complete freedom and flexibility for the same. Specifications are given by faculty members to their departmental head for approval and then are forwarded to the purchase department through the Principal.

The first step towards the procurement of any goods/equipment/consumable etc is done with budgeting.

The budgeting is always finalized in advance before the commencement of the financial year. Budget has two segments, income and expenditure (recurring and non-recurring). Repair, maintenance, Laboratory consumables, annual maintenance contract etc come under the recurring expenses, while purchasing laboratory equipments, furniture, computer, laptops or renovation of any lab, class room etc falls under non-recurring expenses (capital).

The Principal gives directives to the departmental heads to prepare the annual departmental budget. The HoD conducts a meeting with all the faculty members of the department and asks them to submit requirements along with relevant quotations, depending upon the need of the syllabus and current industry trends. Further, HoD prepares a consolidated report and submits to the Principal for approval. The Principal consolidates requirements of all the departments and forwards it to the management for approval. The sanctioned budget from the management is received by the institute.

Further, the department prepares the purchase requisition for the budgeted items as and when the need arises, which is approved by the Principal and sent to the purchase department.

The purchase department goes through the requirements/specifications based on quotations received from different vendors along with the sanctioned budget and prepares a comparative statement for approval by the institute. In case, the purchase department needs any clarification regarding the specification, they get the same from the department. After selecting the best quotation from the vendors, purchase department places the order. Department accepts the goods only after checking the specification thoroughly. Laboratory assistants receive the goods and they inform the concerned Laboratory In-charge/faculty member. The purchase process is completed with the confirmation from the department.

File Description	Document
Any additional information	View Document

6.2 Strategy Development and Deployment

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

Response:

A significant step in helping build the leaders of tomorrow and transforming young minds towards professional competence by inculcating values and developing skills is achieved through an active and well structured Students' Council (SC).

Born out of a strategic plan to give the students a dynamic, competitive and encouraging platform for their holistic growth, the SC selects its members every academic year through a comprehensive and organized system, maintaining complete transparency and giving a fair chance to all the deserving candidates. SC's hierarchical structure allows students to evolve from mere members to adapt to leadership roles with increasingly more challenging and varied tasks under their command helping students to work in teams, and learn interpersonal skills.

The activity of the SC begins with the preparation of the event calendar where semester-wise events are

planned for the various clubs and department-wise professional chapters (IEEE, IETE, CSI, SAE, IPI and ISHRAE). Advanced planning reduces the repetition of events and streamlines the functioning of the college and the entire student led activities. The professional chapters take the responsibility of bridging industry-academia gap by organizing technical seminars, events and workshops.

To successfully organize and host events at a large scale, the SC has dedicated teams for tasks viz. Marketing, Public-Relations, Logistics, Sponsorship, Social Media Management, Multimedia Editing and Photography based on the student interests. This helps the students to gain first hand expertise and a better understanding of these fields.

The social causes/initiatives and Entrepreneurial development activities are taken up by the NSS Unit & the EDC Cell in conjunction with SC. While EDC provides the necessary support to valuable ideas and teaches the students how to transform good ideas into actionable plans and bring those ideas to market, the NSS inculcates taking up social responsibilities.

The SC also serves as a platform for new and innovative ideas. It provides the students with a forum to give their suggestions, and the chance to implement these very ideas, into real world solutions. Prime examples are the GST website and the Spider-Cam which were designed & developed in-house by the students. Newer events like Hackathon and TEDx are successful outcomes of giving students the leverage of building and working on new ideas.

The SC members are involved in all the activities that define the life of a student at GST. Right from the orientation of the First year engineering students, to the farewell of the Graduating students, the council plays an integral part in the organisation and execution of these activities which has given them an opportunity to enhance their professional competence.

The convergence of all the clubs (music, dance, dramatics, literary, etc.), teams and professional chapters is the Annual Festival Tatva-Moksha-Lakshya, which brings to life the very essence of formation of the SC and makes every student feel empowered.

The presence of an active student council has ushered an era of increased organization and accountability, and has allowed the potential of the students to blossom and build a strong personality and an unshakable character.

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

6.2.2 Organizational structure of the institution including governing body, administrative setup, and functions of various bodies, service rules, procedures, recruitment, promotional policies as well as

grievance redressal mechanism**Response:**

The key components of organizational structure of the college are Governing Body (SIES President and managing council), SIESGST Principal, Head of the Departments, Teaching staff, Non-teaching staff and Support cells/depts..

Governing Body conducts meetings to discuss and come up with the strategies and solutions for various aspects and issues related to the college towards achieving its vision and mission. It reviews the institutional strategic plan which in turn sets the academic aims and objectives of the institution and identifies the financial and recruitment strategies. The decision making procedures are made at appropriate levels in the organizational hierarchy.

As per the university/ government guidelines, IQAC Cell, Anti-ragging Cell etc. are also in place for the institution. There are 38 different committees with well defined functions that give academic and administrative leadership to the institution. A committee comprising of administrative staff and faculty members are involved in the planning and implementation, academic audit and evaluation. An optimum level of decentralization is in practice through the autonomous flexibility to the departments and participative decision making process.

SIESGST strictly follows the service rules according to the AICTE norms. It is displayed on the college website too. Recruitment process is carried out according to the norms of the University, a body comprising of university representative, management representative, Principal, external subject experts decides the worthiness of the candidates by his/her performance in the interview according to the parameters specified by UoM. The teaching and non-teaching staff have the benefits of PF, Gratuity, mediclaim and other benefits as applicable.

The institution follows transparent promotional policies previously through Appraisal forms and through Academic Performance Indicators (API) henceforth.

Grievance redressal mechanism have been set up to address several issues of teaching and non-teaching staff. The grievances may relate to

- the matters affecting themselves as individuals
- the matters affecting their personal dealings or relationship with other staff members of the college or students.

File Description	Document
Any additional information	View Document

6.2.3 Implementation of e-governance in areas of operation**1.Planning and Development****2.Administration**

- 3. Finance and Accounts
- 4. Student Admission and Support
- 5. Examination

Response: A. All 5 of the above

File Description	Document
Screen shots of user interfaces	View Document
Details of implementation of e-governance in areas of operation Planning and Development, Administration etc	View Document

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

Response:

SIESGST has an effective system of taking up and addressing issues faced in the everyday functioning of the Institute through the meetings of Various Bodies/Committees from time to time. One such example is the issue of computerization of marks which was to be done in the exam cell. The issue was discussed in the Exam Cell committee Meeting and effective measures were taken as described in the case study below:

Result preparation software was not made available by the University of Mumbai for Credit Based Semester and Grading System (CBSGS) which was implemented in 2012-13. Till the CBSGS implementation, University of Mumbai was using percentage system. After CBSGS implementation, there was a conversion of marks into letter grades. Hence there was a strong need to deploy a new software for result preparation according to CBSGS.

As there was no software available in the market at that time, it was decided to develop the same in-house. Microsoft Access was suggested by the committee and Prof. Neena Jacob was given the task to develop the same according to the ordinances of the University of Mumbai. The software was developed and successfully implemented for batches 2012-13, 2013-14 & 2014-15.

In the wake of additional features required in the software and ease of uploading marks to UoM, Khushi software was implemented from the first half of 2015 as per UoM recommendation. This software reduced the errors during uploading of internal marks as well as theory marks and helped in the timely declaration of results.

This software is only installed in exam cell for reasons of security and privacy with access allowed only to Head of the Departments for a limited period of time. This gives easy access to faculty members to upload internal marks of their subjects. This procedure is followed till date.

SIESGST thus functions in an organized manner tackling issues through its various bodies/committees regularly and coming up with proactive measures.

File Description	Document
Any additional information	View Document

6.3 Faculty Empowerment Strategies

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

Response:

- Group Medical Insurance facility is instituted
- Canteen facility along with refreshment coupons are provided
- Provision for voicing opinions is provided through grievance/suggestion box
- Professional and life skills training are imparted
- Quota in admission for employees' children in any of the SIES Institutions are provided
- Felicitation is done for exemplary academic achievements every year during the annual staff meet.
- Long term service awards are instituted
- Health-checkups are organized .
- Employees are encouraged to participate in various inter-collegiate sports competitions.
- Library facility is made available

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

Response: 0.57

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

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

File Description	Document
Details of teachers provided with financial support to attend conferences,workshops etc. during the last five years	View Document

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

Response: 23.6

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

2016-17	2015-16	2014-15	2013-14	2012-13
29	40	27	11	11

File Description	Document
Details of professional development / administrative training programs organized by the Institution for teaching and non teaching staff	View Document
Any additional information	View Document

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

Response: 100

6.3.4.1 Total number of teachers attending professional development programs, viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Programs year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
98	107	113	110	102

File Description	Document
Details of teachers attending professional development programs during the last five years	View Document
Any additional information	View Document

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

Response:

- Feedback of teaching and non-teaching staff members is collected through performance appraisal to identify strengths and weaknesses of every individual.
- Every faculty member is evaluated by:

1. Every academic year faculty members fill a self-appraisal form and submits it to the appropriate higher authority. The form contains their contribution in teaching learning, academic matters as well as administrative responsibilities.
2. Performance of every faculty member and support staff is also evaluated by respective head on the basis of contribution of the individual to the department, willingness to take up additional responsibilities, regularity, etc.
3. At the end of every semester, students submit faculty feedback which gives their perspective on knowledge and content delivery of the faculty member.
4. Performance of the faculty member during examination and related work is analyzed at the completion of the examination. Faculty Members are communicated about the shortcomings pointed by any of the above feedbacks.

File Description	Document
Any additional information	View Document

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Response:

M/S. V. Sankar Aiyar & Co, Chartered Accountants have been our Statutory Auditors for the last 5 years. They are independent auditors appointed by the Society to conduct the audit of the financial statements including the Balance Sheet and Income & Expenditure Account of the Society. They have not pointed out any weakness in the internal control system. The reports of the statutory auditors are available for the last 5 years. They have stated in their report that proper books of accounts have been kept by the Society and expressed opinion that the financial statements give a true and fair view in conformity with the accounting principles on the Balance Sheet and Income & Expenditure Account. The qualified opinion is not related to the systems and procedures or the internal 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) (INR in Lakhs)

Response: 0

6.4.2.1 Total Grants received from non-government bodies, individuals, philanthropists year-wise during

the last five years (INR in Lakhs)

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

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

Response:

The Institution takes efforts/initiatives to encourage faculty to undertake research work and consultancy projects under Government and Non-Government bodies/schemes.

To mobilize funds for various institute initiatives, the following strategies are taken:

1. Faculty is encouraged to write research proposals and apply for various grants such as UGC, AICTE, DST, CSIR etc.
2. Faculty is encouraged to collaborate with industries and take-up consultancy projects.
3. Institute applies for various governmental funding schemes such as MODROB, PMKVY, NSS etc.
4. Institute actively strives to collaborate with institutes of National repute such as IIT for establishing remote centre, and NPTEL study centres. Under this scheme, the institute also received an amount of Rs.1,00,000/-from MHRD towards setting up of the Remote Centre facility.
5. SIES institutes endowments from Alumni/philanthropists/parents/industry for meritorious, deserving and needy students.
6. The institute mobilizes funds from various industries/organizations for conduction of student events/festivals.

6.5 Internal Quality Assurance System

6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes

Response:

The practices of ISO 9001:2008 Quality Management System (QMS) (2005-17) are being continued under the IQAC since the May 2017.

During 2005-17 years, SIESGST had a very vibrant and effective ISO 9001:2008 Quality Management System (QMS) which was responsible in institutionalizing quality assurance strategies and processes. The

following two best practices were institutionalized as a result of ISO 9001: 2008 QMS:

Academic & Administrative Audits:

The Management Representative (M.R.)/Principal prepares the QMS schedule semi-annually and ensures that it is circulated to all the concerned people. Based on audit results or other events, the MR may increase the frequency of internal audits. However, successive internal audits are held quarterly (till 2016 and made once every semester from 2017). Auditors shall be considered qualified if they meet one of the following criteria: a) having successfully completed an approved internal auditor course or b) having sufficient experience in internal auditing Practices and approved by the Principal. Other than the internal Audit, one external audit is conducted every semester by a third party.

The pre-audit activities involve assigning the auditors for each department and preparing the audit schedule. At the commencement of the audit an “Opening Meeting” is held with all the heads and the auditors. The auditor records of all the personnel that he interviews during the audit. At the end of the audit again a closing meeting is conducted between all the heads & auditors to discuss the findings. Results of the audit and any non-conformity, actual or potential is recorded.

Within one week after the audit, the auditor shall provide a formal audit reports to the M.R, which is reviewed by the MR and forwarded to all the concerned departments. The M.R. monitors any disposition or corrective action activities resulting from an audit as per non-conformity and corrective / preventive action procedures. The M.R. schedules an additional follow-up audit to verify the effectiveness of any corrective action, whenever deemed necessary. Effectiveness is also verified at the next scheduled internal audit for the relevant department.

Management Review Meetings (MRM):The management review meeting happens with all the head of departments and section incharges and conducted semiannually, typically at the end of every semester to review the organization’s QMS and to ensure the continuous suitability, adequacy and effectiveness. The review include assessing opportunities for improvement, action plan and need for changes to QMS including the Quality Policy and Quality Objectives.Management Review Meeting (MRM) input will include results of internal / external audit, customer feedback, process performance and conformity, follow up actions from previous MRM’s recommendation for improvement & changes that could affect the QMS. The output of the MRM will include decisions and actions related to the improvement of the effectiveness of QMS.

The MRM also comprises of presentations given by every department pertaining to their progress / activities every semester right from Academics to Student/staff achievements. Result analysis, root cause analysis for poor results, corrective/preventive actions, education planning & delivery details are all covered in the presentations for discussion and identifying scope for improvements. Records of the management review meetings are maintained and accessible to all employees.

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**Response:**

The teaching-learning process is reviewed rigorously every semester through the MR meetings under the ISO 9001:2008. In addition, regular audits also keep a tab on the quality of the teaching-learning process and help in identifying shortcomings if any. Two examples of institutional reviews and implementation of teaching—learning reforms facilitated by the ISO QMS system is elaborated below:

1. Management review meetings (MRM):

In relation to the teaching-learning process, structures & methodologies of operations, the management reviews the following details every semester:

- a) lecture planned and conducted details.
- b) tracking of the objectives.
- c) result analysis and ATKT statistics.
- d) Root cause analysis / remedial measures taken in case of any non-conformance.
- e) Update on decisions & actions taken post last MR meeting.
- f) review of findings of external and internal audits.
- g) customer feedback
- h) Assessment, changes & improvement of the overall system.

2. Incorporating outcome based education & gauging the Learning outcomes:

Based on the teaching-learning process followed in every department, the HoDs and the Principal along with the session plan coordinators review and recommend changes that can be incorporated. These changes are then discussed in the periodic management review meetings and approved. Incremental improvements have happened in Faculty Handbooks with the inputs received during MRM. The session plans have been improved periodically from consisting of just the topic planned with planned date & references to include conducted dates, LO, and cognitive levels. The questions asked in the tests are based on the Course Outcomes and Cognitive levels decided. After the assessment, the course outcomes and the program outcomes are mapped to get the attainment levels for the outcomes and reviewed periodically through audits.

Overall, this practice of regular institutional reviews is conducted through the IQAC cell periodically.

6.5.3 Average number of quality initiatives by IQAC for promoting quality culture per year**Response:** 2.8**6.5.3.1 Number of quality initiatives by IQAC for promoting quality year-wise for the last five years**

2016-17	2015-16	2014-15	2013-14	2012-13
2	0	8	3	1

File Description	Document
Number of quality initiatives by IQAC per year for promoting quality culture	View Document
IQAC link	View Document

6.5.4 Quality assurance initiatives of the institution include:

- 1.Regular meeting of Internal Quality Assurance Cell (IQAC); timely submission of Annual Quality Assurance Report (AQAR) to NAAC; Feedback collected, analysed and used for improvements**
- 2.Academic Administrative Audit (AAA) and initiation of follow up action**
- 3.Participation in NIRF**
- 4.ISO Certification**
- 5.NBA or any other quality audit**

Response: A. Any 4 of the above

File Description	Document
e-copies of the accreditations and certifications	View Document
Details of Quality assurance initiatives of the institution	View Document

6.5.5 Incremental improvements made during the preceding five years (in case of first cycle) Post accreditation quality initiatives (second and subsequent cycles)**Response:**

SIESGST has risen from strength to strength due to a very robust quality management system in place. Following are the incremental improvements made during the last five years:

Sr. No.	Year	Incremental Improvements (with dates of improvements done)
1	2016-17	Revision of faculty handbook in July 2016 to reduce the number of pages.
2	2016-17	Participated in the NIRF in November 2016.

3	2016-17	Revision policy for compensatory off for teaching & non-teaching staff in July 2016.	
4	2015-16	Public address system installed throughout GST campus for making important announcements in 2015.	
5	2015-16	Professional/Industry internships finalized for all the students of PPT department for 4-6 months in 2015	
6	2015-16	Internal Internships provided to third year CE & IT dept. students to improve their coding skills from June 2015 onwards.	
7	2015-16	Overall result improvement in IT (SE 77 to 83%)	
8	2014-15	Issuing single ID cards to the students for the whole tenure of their BE course started in 2014 instead of yearly ID Card	
9	2014-15	Internet bandwidth increased to 20Mbps in September 2014.	
10	2014-15	Value added certificate courses were introduced for students in A.Y. 2014-15	
11	2014-15	Format for session plan changed in line with incorporation of learning objectives in January 2014	
12	2014-15	Overall result improvement in EXTC (SE 64 to 72%, BE 94 to 99%), CE (BE 98 to 99%), BT (BE 100%)	
13	2013-14	Initiatives taken for conducting orientation sessions for PPT course to ensure increased admissions in 2013, with result being 100% admissions achieved.	
14	2013-14	Restructuring of faculty rooms and constructing new laboratories for PPT department in August 2013	
15	2013-14	Anti-ragging affidavits made a pre-requisite for admissions to higher classes in July 2013.	
16	2013-14	New issues (Issue No. 5) of Quality Manuals and Standard Operating Procedures were issued in January 2014 for ISO 9001:2008 Quality Management System.	
17	2013-14	Overall result improvement in CE (BE 90 to 98%), PPT (SE 41 to 53%, BE 92 to 98%), BT (SE 82 to 93%, BE 100%)	
18	2012-13	Increase in connections taken from NMMC to overcome the complaint of shortage of internet in November 2012.	
19	2012-13	Session plans for subjects as per 12 weeks (36/48 hrs) initiated in all departments in January 2013	
20	2012-13	Setting-up of Robotics Lab under e-Yantra in December 2012	
21	2012-13	Implementing Wifi throughout the campus in February, 2013	
22	2012-13	Increase in internet bandwidth from 3 to 6 Mbps in January 2013	
23	2012-13	Purchasing cyclostet machine in exam cell in October 2012 to ease the process of creating n	
24	2012-13	Overall result improvement in EXTC (SE 72 to 75%, TE 92 to 96%, BE 75 to 94%), CE (TE	

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1 Number of gender equity promotion programs organized by the institution during the last five years

Response: 5

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

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

File Description

List of gender equity promotion programs organized by the institution

Document

[View Document](#)

7.1.2

1. Institution shows gender sensitivity in providing facilities such as:

1. Safety and Security
2. Counselling
3. Common Room

Response:

Gender Sensitivity is defined as the ability to recognize gender issues and to recognize every gender's perceptions and interests. Gender sensitivity is the beginning of gender awareness, questions gender disparities and motivates one toward actions to address gender issues.

In view of this, the Institution has established Internal Complaint Committee (ICC), Women Development Cell (WDC) and National Service Scheme (NSS) Cell to identify, address and conduct various programs on such issues. The names of the members of these committees with their contact addresses are communicated to the students through notice boards and websites.

The college has outsourced the security personnel, which also consists of a good number of lady security personnel to ensure safety, security and identity of all students and staff members in the campus. House-keeping outsourced to PNS Housekeeping services Pvt Ltd also consists a mix of male and female staff taking care of cleanliness and sanitation. Institute has installed adequate number of CCTV cameras in the campus for safety and security. The institute also has adequate common rooms for boys and girls separately.

With an objective to support women throughout their careers - to empower; engage and enable them to rise to the best of their capabilities, the college has conducted a program in association with CII. Women achievers are regularly invited to campus to motivate the girls.

College students are educated through WDC and NSS cell to be sensitive towards issues of Gender bias, sexual harassment, Women empowerment, Dowry, Safety through skits and dramas

Institution conducts seminars to address various health issues such as Menstrual Disorder and Hygiene, Cervical cancer, Osteoporosis, Proper diet planning, etc. In addition to these, Senior Police Inspectors were called to discuss Legal Formalities and Laws related to girls, road safety etc. Students were motivated for Physical fitness by Ms. Meena Barot, Iron lady and Consultant Faculty at ITM group of Institutions, Mumbai.

A professional counselor has been appointed for personal counseling including gender issues. The Institute has established a Mentor-Mentee scheme under which every teacher is assigned a group of about twenty students for mentoring them on individual basis at regular intervals.

7.1.3 Alternate Energy initiatives such as:

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

Response: 20.16

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

Response: 100.8

7.1.3.2 Total annual power requirement (in KWH)

Response: 500

File Description	Document
Details of power requirement of the Institution met by renewable energy sources	View Document

7.1.4 Percentage of annual lighting power requirements met through LED bulbs

Response: 17.44

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

Response: 4.36

7.1.4.2 Annual lighting power requirement (in KWH)

Response: 25

File Description	Document
Details of lighting power requirements met through LED bulbs	View Document

7.1.5 Waste Management steps including:

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

Response:

Solid Waste Management (SWM) System:

SIESGST Institutional waste mainly consists of paper, plastic, glasses, food, etc.

The institute has built compost pits which are maintained by the National Service Scheme (NSS) unit. This has been an initiative in the direction of waste management. Waste produced from canteen is used for these compost pits.

NSS unit has established 5 compost pits from January 2015 in association with Stri Mukti Sanghatna. For maintaining a certain level of moisture content to produce a specific decomposing bacteria, some amount of water is added at regular intervals for decomposing the waste matter. The whole mixture is stirred every alternate day. The bacteria produced is responsible for the further decomposition of organic matter. Each compost pit takes at least 3 to 4 weeks to form manure. It is used for gardening in entire campus.

E-waste is collected in the college campus and its subsequently handed over to NMMC's e-waste management department for appropriate disposal.

7.1.6 Rain water harvesting structures and utilization in the campus

Response:

Rain water harvesting is one area where SIESGST looks forward to build in the future. The existing plumbing infrastructure will have to be changed to incorporate the harvested rain. Since there is a large capital expenditure involved, this activity is in pipeline. Currently, the study for implementation of Rain Water Harvesting Structure is being conducted to have a concrete plan for efficient rain water utilization. This harvested water will be utilised for non-drinkable purposes such as gardening, toilets and cleaning facilities.

7.1.7 Green Practices

- **Students, staff using**
 - a) **Bicycles**
 - b) **Public Transport**
 - c) **Pedestrian friendly roads**
- **Plastic-free campus**
- **Paperless office**
- **Green landscaping with trees and plants**

Response:

SIESGST is proud to have adopted the initiative to minimize paper trail by using various mechanisms such as Google Apps for circulating e-notices to students and faculty members via email, data collection such as course exit survey, feedback, subject choices, etc. through Google forms.

Solid waste management is done by segregating the waste. Organic wet waste goes to compost pit located in the campus which is managed by NSS unit.

In SIESGST, measures are taken to gift saplings instead of bouquet to the Guests in order to minimize the waste generation and to promote Green Initiatives.

Tree plantation drive is conducted annually to make the surroundings greener. Every year the college conducts a drive to collect electronic waste and pass it on to Authorized agency for proper disposal.

Since SIESGST is centrally located, it is very convenient for students and staff to use public transport to reach the college, thereby reducing carbon footprint. Two Bus stops of NMMT/BEST are exactly near the Institute entrance on the request of SIES Management. The management ensures pedestrian friendly roads having zebra crossing and elevated footpath to reach the college.

Institute takes special care in line with Swachh Bharat Abhiyaan to ensure that there is no litter in it's campus by facilitating adequate number of dustbins at various locations in campus.

7.1.8 Average percentage expenditure on green initiatives and waste management excluding salary component during the last five years**Response:** 0.26

7.1.8.1 Total expenditure on green initiatives and waste management excluding salary component year-wise during the last five years(INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
4	3.2	3.3	2.4	0

File Description	Document
Details of expenditure on green initiatives and waste management during the last five years	View Document

7.1.9 Differently abled (Divyangjan) Friendliness Resources available in the institution:

1. Physical facilities
2. Provision for lift
3. Ramp / Rails
4. Braille Software/facilities
5. Rest Rooms
6. Scribes for examination
7. Special skill development for differently abled students
8. Any other similar facility (Specify)

Response: C. At least 4 of the above

File Description	Document
Resources available in the institution for Divyangjan	View Document
link to photos and videos of facilities for Divyangjan	View Document

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

Response: 20

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

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

File Description	Document
Number of Specific initiatives to address locational advantages and disadvantages	View Document
Any additional information	View Document

7.1.11 Number of initiatives taken to engage with and contribute to local community during the last

five years (Not addressed elsewhere)

Response: 8

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

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

File Description

Document

Details of initiatives taken to engage with local community during the last five years

[View Document](#)

7.1.12

Code of conduct handbook exists for students, teachers, governing body, administration including Vice Chancellor / Director / Principal / Officials and support staff

Response: Yes

File Description

Document

URL to Handbook on code of conduct for students and teachers , manuals and brochures on human values and professional ethics

[View Document](#)

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

Response: Yes

File Description

Document

Provide URL of website that displays core values

[View Document](#)

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

Response: Yes

File Description

Document

Details of activities organized to increase consciousness about national identities and symbols

[View Document](#)

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

File Description	Document
Provide URL of supporting documents to prove institution functions as per professional code	View Document

7.1.17 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties during the last five years**Response:** 15

File Description	Document
List of activities conducted for promotion of universal values	View Document

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

At SIES Graduate School of Technology, the day starts with national anthem. The national anthem is also sung in all the functions. All national festivals are celebrated with great enthusiasm to inculcate a sense of patriotism in the students. The NSS unit and the students' council organise many cultural programs to address prevailing social issues. The student staff and alumni participate and rejoice during this celebration with great patriotic fervor.

The Institution also commemorates the birth / death anniversaries of great Indian personalities like Dr.A.P.J Abdul Kalam, Dr. Babasaheb Ambedkar and Mahatma Gandhi. On Teachers day too, the students' council puts up a show to express their love and gratitude for their teachers and salute the great Teacher Dr.Sarvepalli Radhekrishnan. The annual technical festival of the college is celebrated on Sept 15, every year to commemorate the birth anniversary of Shree Mokshagundam Visvesvaraya .Two minute silence is observed by the institution on Kargil Vijay Diwas to pay homage to the martyrs of Kargil war.

Apart from these, many events and guest lectures are regularly organized to instill a sense of national pride and gratitude towards sacrifices of great leaders of our country.

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

Response:

SIES Graduate School of Technology (SIES GST) has always believed in transparency in majority of its activities, be it Annual Budget, Purchase / Procurement, Academic Planning and Delivery or Administrative activities.

The financial functions involve a standard method of making budgets, utilization reports, budget approval, procurement of items and services. Each department prepares its budget based on the template provided by the Office. Based on the budgets received from all the departments, the Principal and the office staff consolidates and prepares the final budget which then goes to the SIES Managing Council for approval. Once the budget gets sanctioned, the requisitions are given by various departments through the customised Supplier Relationship Management (SRM) Software and purchase of items are done through the Central Purchase department, with bills duly passed to the Central Accounts department for payments. The Standard Operating Procedures are well laid down and followed for a streamlined Purchase process.

The academic and administrative functions are maintained through various committees. Starting from Academic Calendar preparation to conduction of examinations, the Academic Council plays a very important role in decision making. Processes such as Education Planning & Delivery, Examination Conduction and Training & Placement are well established. The transparency in Education Planning & Delivery and Continuous Internal Evaluation is evident through the Faculty Handbook.

Transparency in Administrative functions is exhibited through a very approachable office staff. Right from Attendance & Leave management of the employees to providing railway concession to the students, the administrative functions are effectively and transparently handled.

SIES GST also has suggestion box for continual improvement.

7.2 Best Practices

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

Response:

BEST PRACTICE 1

1. Title of the Practice:

Implementation of Google Apps for Education

2. Objectives of the Practice

Google Apps is a Cloud-Based Messaging & Collaboration Solution from Google Inc. which provides any Educational Institute, an Enterprise Class platform, and Applications on the cloud. The institute

implemented Google apps for education in June 2013 with an objective to provide a platform to enable sharing, communication, and collaboration among students and teachers and enhance Institute's Brand Value in the society. It was also envisioned to modernize the academic process and make the education planning & delivery more effective through this platform. All the students and teachers were provided with email IDs with the college domain. This branding not only added credibility to all the internal and external communication but also boosted the faculty, staff, and students' sense of belonging to the Institute.

3. The Context

The Institute implemented the Google Apps for Education through Global Talent Track Pvt. Ltd (GTT) who had partnered with Google to promote Google Apps in Universities and Institutions. The implementation began with registering a domain name for the Institute followed by verification of domain ownership. This was verified by uploading an HTML file on the host server, followed by user provisioning and user creation. This included Individual user creation for the admin account and Bulk upload for all the other users. The bulk upload was done with the help of .csv files. The MX records were updated on DNS server to route the email for institute domain.

To assure effective and efficient use, GTT provided an admin level and user level training through video conferencing. After successful implementation, the first challenge was to create admin level and user level groups. This was created to facilitate proper communication channel among faculty, staff, and students.

4. The Practice

The Indian higher education system has undergone a massive expansion to become the largest in the world enrolling over 70 million students, many of them who would otherwise have no access to university education. Such expansion has been made possible only due to technology-enabled learning.(ICT tools, MOOCs, and online platforms).

It is found that most of the higher educational institutions in India have very less utilization of technology in the education delivery, communication and collaboration due to

1. lack of access to cost-effective and easy to use tools
2. lack of access to adequate internet bandwidth
3. lack of awareness and training of staff involved with the educational institutions

The Google apps provide a solution to all the above issues. It provides a suite of free productivity tools to help students and teachers interact and collaborate seamlessly and securely across devices.

Further with the implementation of an outcome-based model for higher education, (OBE) in India, the focus is now on abilities & skills of the Learners. Also, while deploying technology-driven tools, one has to keep in mind the needs of the whole organization and provide ease of use for everyone in the organization.

Google Apps for education came as a solution to all the above-mentioned requirements with a setup and management that is simple and the cloud-based tools scale easily across classrooms. Most of the times, the teachers and students are already familiar with the tools and require very less professional training.

The tools encourage collaboration, creativity, and critical thinking, and let the teachers work one-on-one or with the whole class from anywhere, anytime, and on any device. Tools like Google Classroom also help free up teachers' time so they can focus on quality teaching. It provides facility to pre-record and upload lecture videos and class notes to be accessed by students at their comfort and enables faculty to have more meaningful classroom sessions through group activities, problem-solving and interactive learning. The online analytics provide faculty with data on the level of understanding of each student, enabling them to provide personalized support to aid student learning outcomes

The biggest advantage of G Suite for education is that, it is free for educational institutions and is secure and poses no additional infrastructural requirements which could otherwise be a detrimental factor in the implementation of ICT tools.

5. Evidence of Success

Google Apps enables institutes to manage all communication from a central place and keeps the whole college on a single official platform. Firstly all the communication in SIESGST were shifted from traditional notice board method to the Gmail service provided by the Google Apps. This ushered increased professionalism and transparency into the system. Department-wise and class-wise groups for faculty and students further ensured smooth communication. The official email IDs also help in keeping in touch with the students even after they graduated and thus improved connectivity with the alumni.

Some of the achievements of Google Apps implementation were use of the following Apps for teaching-learning:

- Google Drive to upload course contents, various files formats, etc. used as an online storage space.
- Google Docs, Sheets and Slides used by faculty for easy collaboration among faculty members and student members respectively.
- Google Forms used by faculty to collect various data, feedback, conduct quiz etc. and by students to collect event-related details etc.
- Google Classroom used by many faculty members to share the lecture notes, videos, assignments and communicate with students.
- Google Sites used by faculty members to share the video lectures, learning resources and create their profile page and by students to build event websites.
- Google Calendar used for every semester is synced with academic and event calendar made available to everyone easily for timely reminders.

The implementation of Google apps has reduced the usage of paper and significantly contributed towards Go green initiative.

6. Problems Encountered and Resources Required

As there was no major infrastructure required for the implementation, there were no problems encountered from the technological aspect but had few people issues which were addressed by regular training sessions.

The institute took several initiatives to overcome this resistance and as a first step, it made it mandatory to use official Gmail ID for all the internal communication by sending all the notices and circulars on official Gmail ID. For every activity/event, an official Gmail ID and Google sites were created to encourage the people to use the tools provided by the Google apps. The faculty was also asked to regularly post online

quiz and feedback through Google forms. All the other learning management softwares were also linked to the official Gmail login. All this has led to the integration of technology to pedagogy at the Institute.

BEST PRACTICE 2

1. Title of the Practice

Effective Education Planning & Delivery with Faculty Handbook.

2. Objectives of the Practice

The concept of Faculty Handbook was born when SIESGST was certified with ISO 9001:2001 Quality Management System for continual improvement in the year 2005.

The objective of the handbook was:

- 1.To have a single point record keeping of the education planning &delivery and attendance monitoring.
- 2.To assist in taking remedial actions in cases where the plans have not been successfully worked out.
- 3.To have a ready reckoner of the progress of different courses / syllabus completion, consolidated marks summary of the students, and result analysis.
- 4.To help in taking up remedial classes / coaching based on result analysis.
- 5.To record the teachers' participation in Institute activities and their own professional development.

3. The Context

The context of developing this handbook was when faculty had to maintain individual attendance sheets of every lecture from the different courses they were teaching. In addition to this teaching session plans were not standardized, and the result analysis sheets were maintained in physical files, which were difficult to handle and tedious refer to.

With the handbook, all the above problems were sorted and included in one single booklet. It became the very heart of Academics in SIESGST. A faculty had every activity of his/her connected around the handbook either for information inclusion or information retrieval.

The following points were considered during design & implementation:

1. The design of the handbook had to be such that it is easy to handle and taken along with the teacher to the classroom.
2. The quality of the handbook had to be durable to withstand all the handling by students & teachers for one full semester.

4. The Practice

The faculty handbook forms a very significant part of the India Higher education. This is because Higher Education Teachers are not only supposed to deliver regular lectures, but these lectures are expected to be interactive, by engaging learners with case studies, utilizing ICT tools, including practical demonstrations, conducting field trips or industrial visits and much more.

With the inclusion of Academic Performance Indicators (API) now being made mandatory in appraisal systems of various institutes in India, it becomes even more important to record these activities in a suitable single point booklet. This is where handbook assists the faculty.

From a point where the Faculty handbooks were merely used to record regular activities of faculty like attending conferences/seminars/workshops, publishing research papers, etc., it has now progressed to a format for recording these activities based on the APIs.

If it is significant for the teachers, it is equally indispensable for students today to maintain balance in their Academics and Co & Extracurricular activities. It is here that the handbook helps them in keeping regular track of their attendance, with their signatures taken at regular intervals.

With India adopting Outcome Based Education System (OBE), it has also become necessary to continuously assess the students learning and grade them, which gives input to the faculty on the probable actions that can be taken. Handbook helps this way in continuous assessment of the students.

With handbooks initially consisting of session plans having only topics planned with date of conduction; today it has come to a stage where the session plan includes, the topics planned, their cognitive levels, the instructional strategy and the mappings with the expected course outcomes, in addition to the planned & conducted dates. This is inline with the OBE system where student-centric teaching-learning methods have been adopted.

The handbook is also instrumental in terms of attendance monitoring and recording of defaulters with their assigned tasks / action taken. The students' seminars / mini-projects / final year projects / professional internships are all recorded in the handbook for regular tracking.

Overall result analysis and consolidate marks are fed into the handbook for easing the process of internal assessment and awarding the termwork marks.

Essentially the Faculty Handbook also includes the Individual Faculty Timetable, and the Academic Calendar, to plan their schedules and make the most of their time. The effectiveness of the handbook is maintained with its fortnightly reviews by the Departmental Heads (HoDs) and monthly reviews by the Principal.

The handbooks over the years have become leaner with reduction in number of pages and has been instrumental in helping the Faculty to be inline with the Vision & Mission of the Institute and always be aware of their roles and responsibilities as Academicians.

5. Evidence of Success:

The handbook has been instrumental in:

1. Taking up Quality Objectives for result improvement based on result analysis.
2. Conducting extra / additional lectures based on shortcomings recorded.
3. Continuous Internal Evaluation of the students for laboratory practical / tutorial sessions and project / seminars.
4. Planning the academic schedule, guest lectures and conducting extra theory/practical/tutorial sessions based on the Academic Calendar and Individual faculty timetable.

5. Mapping COs with lecture sessions and associating topics with various Cognitive levels.
6. Maintaining the defaulters lists and recording the action taken.
7. Performing the result analysis to get an insight into the performance of the students. This can be used to compare against earlier analysis of the same courses and may give insight to take up quality objectives or conduct remedial classes.
8. Regular attendance monitoring and signed by students.
9. Regular monitoring of the education planning and delivery process by HoDs and the Principal to take corrective / preventive actions, if and when required.
10. Track the activities in which various faculty members are involved.
11. Track the leave details of faculty members.
12. Record keeping for future reference and improvement.

6. Problems Encountered and Resources Required

Some of the problems which were encountered in implementation of the faculty handbooks were:

1. Irregularity in maintaining the data in Handbook, which was addressed through the HoDs or in certain cases with a comment by the Principal in the handbook.
2. Designing of the handbook and making revisions were a difficult task. To overcome this, it was successfully taken by the Printing & Packaging Technology department.
3. Revisions are made only once in the beginning of the Academic Year and quantity of handbooks printed are for two semesters.
4. Initially the student signatures were taken after every 10 lectures for theory which was cumbersome. This has been addressed by equally spacing out the signatures page wise typically after 12, 25, 38 and 56 lectures. With this arrangement, a 2 lectures/week course will require only 2 signatures, a 3 lectures/week course will require only 3 signatures and 4& 5 lectures/week course will require only 4 signatures.

7. Notes (Optional)

A faculty Handbook is a must for every Higher Education Institute to keep pace with continuously evolving teaching-learning mechanism, to have an efficient education planning and delivery process, to monitor attendance/defaulters and take timely action, to analyse results periodically and to develop an invaluable record for the future academic years. A Faculty Handbook can be considered an indispensable anchor to the OBE system.

7.3 Institutional Distinctiveness

7.3.1 Describe/Explain the performance of the institution in one area distinctive to its vision, priority and thrust

Response:

The SIES Graduate School of Technology has committed itself to the task of inculcating social values and responsibilities. In line with its Vision of working towards the socio-economic development of the country, the SIES has taken utmost care to give back to the community.

“Those who have the ability to act, have the responsibility to act.”

Abiding by this principle, SIESGST has committed itself and taken on priority, the task of an inclusive social upliftment and adopt ‘Project Beacon’ as its institute social responsibility.

‘Project Beacon’, incorporates for the targeted youth a set of training programs that are recognized by, and relevant to the requirements of industries. To begin with seven vocational trades of Carpentry, Welding, Metal Turning, Sewing & Tailoring, Plumbing, Electrician and Computer Operator was taken up. Each of these courses was preceded by a foundation course to get the candidates acquainted with minimum functional Banking Skills, Computer Skills, Spoken English, and Mathematics. At the end of the training, the students were placed with service providers, contractors or in industries for internship after which they were facilitated to take certification examinations from concerned agencies and supported to find placement.

Project Beacon is a small step to give meaning and purpose to someone’s life. As it is rightly said “It costs a candle nothing to light another candle”. Hence SIESGST has pledged to be the candle of inspiration and go on to light the Beacon of Knowledge. SIESGST has now successfully completed 4 batches of training under Beacon.

The thrust for societal development is also instilled on a large scale into the students, through the active NSS unit which undertakes various services. The NSS unit of the college has stood by its oath of social responsibility which is evident by the success of its campaigns and activities all throughout the year.

The institute ensures that the social values and feeling of giving back to the society is not limited to the NSS unit. All the student clubs also do their bit by organizing several charity events under their banners like Dream Run-Mini Marathon for a social cause, stage plays and many more fund raising cultural events.

At GST, every student, as individuals and together with staff, as a college takes part in this endless odyssey of giving back to the society, and to transform it to make it a better place.

5. CONCLUSION

Additional Information :

A healthy mind resides in a healthy body and to that end the institute provides good sports facilities for both indoor and outdoor games in the form of carrom, Table-Tennis and chess facility and has an arrangement with the open playgrounds in the neighborhood for outdoor games. SIESGST encourages many educational and entertaining programs for the benefit of our students. The idea is to provide students' opportunities to showcase their talents in many diversified fields of activities such as music and dance, debates and discussions, creative arts and many more. "Samanvay" the annual magazine keeps one updated about the activities of GST and is another forum which is used to present literary abilities. SIESGST follows strict norms regarding attendance and punctuality and no compromises are made in following the discipline and regulations of the institute.

The institute has taken the initiative of developing communication and soft skills for higher classes and has an equipped language lab. Intensive training is imparted in the areas of group discussions, interview techniques, verbal ability and presentations.

Concluding Remarks :

Days of national and cultural importance are celebrated in GST keeping in mind, the concept behind their significance. Induction programs are arranged for both students and faculty initiating them into the SIES culture. Students and staff participate in programs of social importance by way of organizing Blood Donation camps, AIDS and Health Awareness Camps, and conducting computer literacy classes for school children through a very active NSS cell.

The institute also conducts a skill development course free of cost for the underprivileged and school dropouts under Institute Social Responsibility initiative – "Beacon".

SIESGST endeavours to be known for its innovation and professionalism and aspires to be one of the best technical institutes in the country.

6.ANNEXURE

1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification																				
1.1.3	<p>Percentage of participation of full time teachers in various bodies of the Universities/ Autonomous Colleges/ Other Colleges, such as BoS and Academic Council during the last five years</p> <p>1.1.3.1. Number of teachers participating in various bodies of the Institution, such as BoS and Academic Council year-wise during the last five years</p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> <th>2012-13</th> </tr> </thead> <tbody> <tr> <td>93</td> <td>84</td> <td>90</td> <td>92</td> <td>76</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1"> <thead> <tr> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> <th>2012-13</th> </tr> </thead> <tbody> <tr> <td>7</td> <td>0</td> <td>0</td> <td>1</td> <td>5</td> </tr> </tbody> </table> <p>Remark : As per HEI response</p>	2016-17	2015-16	2014-15	2013-14	2012-13	93	84	90	92	76	2016-17	2015-16	2014-15	2013-14	2012-13	7	0	0	1	5
2016-17	2015-16	2014-15	2013-14	2012-13																	
93	84	90	92	76																	
2016-17	2015-16	2014-15	2013-14	2012-13																	
7	0	0	1	5																	
1.2.1	<p>Percentage of new Courses introduced out of the total number of courses across all Programs offered during last five years</p> <p>1.2.1.1. How many new courses are introduced within the last five years</p> <p>Answer before DVV Verification : 190</p> <p>Answer after DVV Verification: 204</p> <p>Remark : New courses . HEI response.</p>																				
1.3.3	<p>Percentage of students undertaking field projects / internships</p> <p>1.3.3.1. Number of students undertaking field projects or internships</p> <p>Answer before DVV Verification : 698</p> <p>Answer after DVV Verification: 266</p>																				
2.1.2	<p>Average Enrollment percentage</p> <p>(Average of last five years)</p> <p>2.1.2.1. Number of students admitted year-wise during the last five years</p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> <th>2013-14</th> <th>2012-13</th> </tr> </thead> <tbody> <tr> <td>348</td> <td>305</td> <td>351</td> <td>415</td> <td>409</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p>	2016-17	2015-16	2014-15	2013-14	2012-13	348	305	351	415	409										
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2016-17	2015-16	2014-15	2013-14	2012-13
345	305	351	415	384

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

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
390	390	420	420	420

Answer After DVV Verification :

2016-17	2015-16	2014-15	2013-14	2012-13
390	390	420	420	420

Remark : HEI response

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

2.4.4.1. Number of full time teachers receiving awards from state /national /international level from Government recognised bodies year-wise during the last five years

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
20	11	9	7	4

Answer After DVV Verification :

2016-17	2015-16	2014-15	2013-14	2012-13
17	5	8	5	3

Remark : As per SSR and HEI , one full time teacher to be counted once only.

3.3.3 Number of research papers per teacher in the Journals notified on UGC website during the last five years

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

Answer before DVV Verification:

2016-17	2015-16	2014-15	2013-14	2012-13
07	12	11	8	9

Answer After DVV Verification :

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

4	7	9	2	3
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Remark : HEI response

4.1.3	<p>Percentage of classrooms and seminar halls with ICT - enabled facilities such as smart class, LMS, etc</p> <p>4.1.3.1. Number of classrooms and seminar halls with ICT facilities Answer before DVV Verification : 29 Answer after DVV Verification: 12</p> <p>Remark : HEI response</p>
4.2.6	<p>Percentage per day usage of library by teachers and students</p> <p>4.2.6.1. Average number of teachers and students using library per day over last one year Answer before DVV Verification : 761 Answer after DVV Verification: 70</p> <p>Remark : Approximate average from HEI response. Provided document is not proper and relevant.</p>

2.Extended Profile Deviations

Extended Profile Deviations

No Deviations