SELF STUDY REPORT

FOR

2nd CYCLE OF ACCREDITATION

GOVERNMENT COLLEGE OF ENGINEERING, SALEM

NH44, BANGALORE HIGHWAYS
636011
https://gcesalem.edu.in

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

March 2024

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Government College of Engineering, Salem was started during the 3rd Five Year Plan in 1966. The institution is located in a beautiful 231-acre site surrounded by hills. The first batch of students was selected for the academic year 1966 - 67 for courses in Civil, Mechanical, and Electrical Engineering. Metallurgical Engineering was introduced in the institution in the academic year 1973 – 74. The second department to be added to the institution was Electronics and Communication Engineering. It was introduced in the academic year 1985 - 86. Computer Science and Engineering course was introduced in the year 2001. Apart from the six Undergraduate courses, the Institution also offers six postgraduate courses namely Computer Aided Design, Structural Engineering, Power Electronics and Drives, Communication Systems, Thermal Engineering and Welding Technology.

Autonomous Status has been conferred to the institution by Anna University, Chennai, and the University Grants Commission (UGC). The Undergraduate B.E. courses Metallurgical Engineering, Electronics and Communications Engineering and Post-graduate M.E. courses Computer-Aided Design, Structural Engineering and Thermal Engineering are accredited by the National Board of Accreditation (NBA). Choice Based Credit System (CBCS) has been implemented from the academic year 2016-2017.

All the Departments have been granted recognition for guiding research work leading to a Ph.D. under Anna University, Chennai. GCE Salem was one of the eleven Technical Institutions in Tamilnadu selected for World Bank financial assistance under the Technical Education Quality Improvement Programme (TEQIP) from 2018 - 2021.

The AICTE has recognized the Institute as one of the Quality Improvement Programme (QIP) centers for doing research leading to Ph.D. in Mechanical, Civil and Electrical Engineering branches.

Government College of Engineering, Salem is one of the two institutions to have the privilege of hosting Innovate TN lab, an initiative taken by the state government to train the students of the engineering stream to face the real-time challenges faced by the employees of major firms and to train them in the much-needed areas in the recent fields of engineering. It makes them experts in different fields thus increasing their possibilities to be employed in reputed companies or to become entrepreneurs.

Vision

We envision our students as excellent engineers not only in the field of Science and Technology but also in good citizenship and discipline.

Our commitment lies in producing comprehensive knowledge seekers and humane individuals, capable of building a strong and developed nation.

Mission

- To impart updated technical education and knowledge.
- To groom our young students to become professionally and morally sound engineers.
- To reach global standards in academics and value based education.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

Legacy: The Government College of Engineering, Salem (GCE Salem) is the third oldest technical institution in Tamil Nadu. It boasts a rich academic history and traditional legacy.

State-of-the-art Facilities: The college has modern facilities, such as laboratories, computer infrastructure, ICT-enabled classrooms, seminar halls, and a digital library. These resources enhance the teaching-learning process for both faculty and students.

Innovation Hub: GCE Salem promotes innovation and entrepreneurial development through specialized facilities like the Innovative TN and AR-VR Laboratory. These facilities provide students with practical exposure and skills in emerging technologies.

Academic Autonomy: The college enjoys academic autonomy, which allows it to regularly update its curriculum to meet the recent advancements in industry and technology demands.

Research Opportunities: Each department offers research facilities, providing faculty members with opportunities for research, consultancy, and other extensive academic activities.

Financial Stability: As a state government-funded institution, GCE Salem effectively manages its financial resources to meet the needs of its faculty and staff salaries, infrastructure maintenance, and other operational expenses.

Student Support: The college offers various support services, including remedial courses for students in need, value-added programs for advanced learners, and motivation and support for participation in co-curricular and extra-curricular activities through various clubs.

Transparent Evaluation: GCE Salem employs an Examination Management System that ensures transparency and accountability in the evaluation process.

Affordability: The college offers quality education at an affordable cost, making it accessible to a broader range of students.

Decentralized Governance: Decentralized governance structures ensure transparent and accountable decision-making processes within the institution.

Strong Alumni Network: GCE Salem benefits from a supportive alumni network that provides career guidance, scholarships, and internship opportunities to current students.

Institutional Weakness

E-Governance Implementation: Despite integrating Information and Communication Technology (ICT) in various areas, e-governance practices need improvement to streamline administrative processes and enhance digital platforms for more efficient management.

Procedural Constraints: The institution faces constraints related to procedures and protocols for implementing facilities.

Limited Industry-Institute Collaboration: More collaboration must be established between the institution and industries for research initiatives and funded projects.

Insufficient Funding for Research: The institution needs to secure funding for research projects, including those sponsored by government agencies like the Department of Science and Technology (DST), All India Council for Technical Education (AICTE), or the University Grants Commission (UGC).

Institutional Opportunity

Enhancing Inter-Departmental Collaborative Research: By leveraging existing facilities, the institution can improve faculty participation in collaborative research across different departments.

Revenue Generation through Consultancy: The institution can increase internal revenue generation by offering consultancy services across all departments.

Establishment of Centers of Excellence: Setting up centers of excellence in each department can elevate the institution's status and expertise in specific areas. These centers can serve as hubs for research, innovation, and knowledge dissemination, attracting funding.

Strengthening Partnerships with Premier Institutions and Industries: Improving Memorandums of Understanding (MOUs) with leading institutions and industries can enhance internship opportunities, collaborative research projects, and placements.

Global Higher Education Promotion: The institution can increase the number of students who take up higher studies globally by organizing various training programs with the available expertise.

Institutional Challenge

One of the significant challenges in the pedagogical process is shaping students from diverse social and economic backgrounds to meet industry requirements.

Another notable challenge is providing 100% placement to students.

Project funding can also be challenging, especially for prestigious organizations like the Department of Science and Technology (DST) or the All India Council for Technical Education (AICTE).

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

The Government College of Engineering in Salem, India, has been granted Autonomous Status by Anna University and the University Grants Commission since 2009, which recognizes the institution's academic excellence and independence. The college offers six undergraduate and six postgraduate programs, including the recent addition of an M.E. in Communication Systems. The introduction of the Choice Based Credit System (CBCS) in 2016 has allowed students to choose courses of interest from various disciplines.

The college is dedicated to developing skilled professionals and responsible citizens by providing employability skills training through various mandatory courses, including the Communication Skills Laboratory, Proto-sem, Industrial Training Internships, and Project Works. The curriculum also includes courses such as Universal Human Values, Indian Constitution, Environmental Science and Engineering, Professional Ethics, Disaster Management, Waste Utilization, and Recycling to instill a sense of social responsibility among students. The college also offers flexibility through NPTEL/SWAYAM/Online courses and Value-added courses.

The college has a well-defined curriculum framework that defines Program Education Objectives (PEOs), Program Outcomes (POS), Program Specific Objectives (PSOs), and Course Outcomes (COS), which are communicated to stakeholders, including faculty, students, alumni, and industry experts. The curriculum comprises 973 courses, with approximately 20.34% of new courses introduced in the last five years across all programmes, focusing significantly on Employability, Entrepreneurship, and Skill Development.

The college values the input and feedback of its stakeholders and offers 100 % programs with components research projects /internships for the year 2022-2023. A structured feedback mechanism involving students, faculty, employees, alumni, industry, and subject experts is established for curriculum and syllabus revision. The Academic Council receives input from standing committees and the respective Board of Studies and approves course content and syllabi for all programmes. The most recent syllabus and curriculum revision happened for the academic year 2022-2023 for all programmes, reflecting the college's commitment to continuous improvement and stakeholder engagement.

Teaching-learning and Evaluation

The institution follows the Outcome Based Education approach (OBE) in all its programmes. Each program has its own set of well-defined learning outcomes, including Program Educational Outcomes (PEOs), Program Outcomes (POs), Program Specific Outcomes (PSOs), and Course Outcomes (COs). The COs are structured according to Bloom's Taxonomy, and the syllabi for each course are designed to align with these outcomes. Students have academic flexibility, allowing them to take elective courses across all UG programmes and additional courses such as NPTEL/MOOC that interest them.

Training programs are provided to support faculty members in implementing OBE. An induction program is conducted for first-year students to familiarize them with higher education standards. The institution offers remedial and special English language classes to address diverse learning needs, support slow learners, and enhance communication skills. Advanced learners can enroll in additional courses such as B.E (Honors), fast track, and online/NPTEL courses. The institution offers experiential learning opportunities such as internships, industrial visits, and projects, alongside courses introduced through the Innovate TN Lab. This lab is dedicated

to fostering innovation and enhancing students' short- and long-term employability skills.

Postgraduate students are provided with technical seminars for participative learning, while undergraduate students can enhance their skills through participation in respective technical associations. Tutorial sessions are also designed to improve their problem-solving skills for all four-credit courses. Around 89% of the classrooms have ICT-enabled tools for effective teaching and learning. One faculty mentor is assigned for every 20 students for their mentorship. The student-teacher ratio is 19:1, and approximately 61.61% of faculty members hold PhDs. The average teaching experience of the faculty is 15.03 years.

The examination management system supports all exam-related activities, including online course registration, hall ticket generation, and result processing. The teaching-learning process is evaluated through continuous internal assessments, end-semester examinations, online feedback mechanisms, department-level committees, and academic audits, ensuring quality and accountability in education delivery.

Research, Innovations and Extension

The Government College of Engineering, Salem, a recognized research institute under Anna University, boasts many scholars. Currently, around 133 scholars are pursuing their Ph.D.s under the guidance of our 29 recognized supervisors. Our institution's research prowess is further reflected in our Scopus h-index of [31] for the assessment period, with faculty members collectively publishing over [550] publications.

Our Institution Innovation Council (IIC) has been instrumental in fostering an innovative environment at the Government College of Engineering, Salem. It has facilitated various events, including workshops like "Intellectual Property Rights and IP Management for Startups." In addition, our faculty's innovative spirit is evident in the 9 patent rights held across various departments.

Our institution has been granted around 4.00 Crores under the Technical Education Quality Improvement Program (TEQIP), effectively utilized to procure cutting-edge equipment across all departments, thereby enhancing our research facilities. TEQIP also provides financial assistance to faculty and students, with [80%] of faculty members receiving seed money for advanced studies. Full-time Ph.D. scholars and M.E. students benefit from monthly stipends. Our research facilities include advanced equipment such as Scanning Electron Microscopy (SEM), E-DAX attachments, Rapid Prototyping Machine (RPT), Computer Numerical Control (CNC) Wire Cut Electrical Discharge Machine (EDM), X-ray Diffractometer, Optical Emission Spectrometer and Servo Hydraulic Shake Table. We also engage in numerous twinning activities with the Government College of Engineering, Raipur (GCE Raipur), including faculty exchange programs, workshops, seminars, and training sessions.

The institution has various clubs, including the National Cadet Corps (NCC), National Service Scheme (NSS), Youth Red Cross (YRC), Red Ribbon Club (RRC), Leo Club, Standard Club and Rotaract Club. These clubs serve as platforms for students and faculty members to engage in various outreach programs, demonstrating the institution's commitment to community service, environmental sustainability, and personal development. The college organizes a diverse range of outreach initiatives, such as the Gaja relief fund, blood donation camps, visits to orphanages and nursing homes, renovation works in government schools, cleaning rivers, awareness campaigns on the impacts of plastics on earth, solid waste management, and tree plantation drives.

Infrastructure and Learning Resources

The institution boasts excellent physical and academic facilities that support the all-round development of its students. Here's a breakdown of the facilities and investments made:

Physical Infrastructure: The institution has 46 classrooms, 62 laboratories, 7 seminar halls, 5 conference halls, and 2 drawing halls. This provides enough space for academic and extracurricular activities.

Maintenance Expenditure: In the past five years, the institution has invested Rs 621.04 Lakhs in maintaining its physical and academic facilities and 1196.57 lakh for infrastructure, providing ample space for academic and extracurricular activities.

Innovate TN Lab: The institution has established an Innovate TN lab, which, with an investment of Rs 100 lakhs, fosters innovation and entrepreneurial skills among students in partnership with the Tamil Nadu Startup Innovation Mission.

ICT Facilities: There are approximately 518 computers available on campus, and 89% of classrooms have ICT tools and Wi-Fi facilities.

Library: The institution's library is equipped with Koha library management software and houses a collection of 54,700 books. Additionally, a Digital Library with 100 computers connected to the internet provides access to e-journals, books, NPTEL courses, plagiarism detection tools, the Shodhganga repository, and educational programs broadcasted via satellite.

E-Content Development: Faculty members develop e-content to provide students with digitized course content. This allows students to review course content at their own pace and engage in interactive learning activities to deepen their understanding of course concepts.

Gym Facilities and Sports: Well-established gym facilities for both men and women are available, along with indoor and outdoor sports activities like table tennis, carrom, chess, ball badminton, and a basketball court. These promote physical and mental well-being among students.

Auditorium and Planetarium: The institution features an auditorium for technical and cultural events, as well as a planetarium.

Hostel Accommodation: About 83% of students are hostel inmates, which fosters team building and interdisciplinary ideas for future entrepreneurship among students.

Overall, these facilities create a conducive learning environment and promote holistic development among students at the institution.

Student Support and Progression

Our institution is steadfast in bolstering our students' journey toward success. We take immense pride that a substantial majority, to be precise 83.94%, of our students are beneficiaries of scholarships from various government and non-government initiatives. These include community scholarships, Chief Minister's awards, Means-cum-Merit, and alumni scholarships. These scholarships are not just financial aids; they reflect our unwavering commitment to student welfare and play a pivotal role in shaping the future of our students.

In the academic year of 2022-2023, we witnessed the successful placement of approximately 55% of our students, a clear indication of the superior quality of education and training we impart. Our collaborations with esteemed organizations like M/s TIME and M/s Gate Forum enable us to offer training programs for competitive exams such as GATE, CAT, GMAT, GRE, IELTS, and TOEFL. The effectiveness of our rigorous training is evident in the impressive 1.7% of students who have triumphed in national and state-level examinations.

We regularly organize various short-term training programs, induction programs, soft and life skills development programs, career guidance programs, awareness on recent trends, and bridge courses to enhance our students' skills and knowledge.

In our institution, we deeply value the insights and perspectives of our students. Their valuable input is crucial in our decision-making process by actively involving student representatives in decision-making bodies such as the Board of Studies, Class Committees, Hostel Committees, and Students Affairs Committees ensuring student interests are always prioritized. Furthermore, we have dedicated cells like the Students Grievance Cell, Anti-Gender Harassment/Internal Complaint Committees, Anti-Ragging Committees, and SC/ST Cell, where students can voice their concerns. This underlines our unwavering commitment to student welfare and safety, making our audience feel valued and included.

Each department organizes a national-level technical symposium through respective student associations, promoting leadership and developing technical skills. Literary and Cultural Associations and the Students Union organize events like Geo-fest, Geo-sports, Vidiyal, Tamilmandram, and Xperia.

Finally, we are grateful for the support we receive from our alumni. The 1993 batch of alumni contributed to constructing an arch at the central gate, and alumni also provide scholarships for financially disadvantaged students annually.

Governance, Leadership and Management

The institution operates according to guidelines established by the Government of Tamil Nadu and the Commissioner of Technical Education, Chennai. These external bodies provide the regulatory framework within which our governance is structured. Governance is decentralized, and the Board of Governors (BOG) plays a crucial role in overseeing major decisions in line with UGC, AICTE, and state government directives. The BOG, composed of representatives from various stakeholder groups, holds regular meetings to set strategic plans, approve goals, and consider stakeholder input, ensuring a balanced and inclusive decision-making process.

The principal, BOG members, and Department Heads support planned activities within their purview. Decision-making on student-centric programs, activities, and curriculum revisions is decentralized to departmental levels, with ten departments led by Professor/HoDs. Subcommittees of the BOG, including Academic, Finance, Grievance Redressal, Anti-Gender Harassment, etc., enhance governance effectiveness. Grievance resolution mechanisms, both online and offline, ensure timely redressal and are overseen by senior faculty.

The Academic Council receives input from standing committees and the respective Board of Studies and approves course content and syllabi for all programmes. The Controller of Examinations (COE) cell prepares the academic and assessment schedule and manages the overall administration of examinations.

Each department has functional autonomy to execute student-focused initiatives, holding frequent meetings along with stakeholders to address academic and receive feedback on the teaching-learning process.

The Internal Quality Assurance Cell (IQAC) plays a pivotal role in maintaining and enhancing the quality of our institution. It organizes institutional workshops and seminars on quality aspects and actively targets benchmarks for various aspects such as curricula, infrastructure, student support, and research. The IQAC is also responsible for collecting and analyzing feedback responses from all stakeholders on quality-related institutional processes. It documents the various programs and activities leading to quality improvement and submits the Annual Quality Assurance Report (AQAR) as per NAAC guidelines. Furthermore, the IQAC presents the institute's performance to accrediting organizations like NAAC, NIRF, and NBA, ensuring our commitment to quality is recognized and validated. This accreditation process is a rigorous and comprehensive evaluation of our institution's performance, ensuring it meets the highest quality standards in education and research.

Institutional Values and Best Practices

The Institute values and promotes best practices in various areas. The Anti-Gender Harassment Committee meets frequently to address gender-related issues. The campus has been made accessible for individuals with mobility challenges by strategically placing ramps in department buildings, the library block, and other areas. Disabled candidates are given an additional 30 minutes of extra time in semester examinations. The institution also organizes programs and pledges to instill and emphasize the significance of constitutional values, rights, and social responsibilities among faculty and students. The Youth Parliament Program initiated by the Ministry of Parliamentary Affairs is one such initiative that aims to deepen understanding and engagement with democratic processes.

Best Practices:

In terms of best practices, the institution practices the “Miyawaki” method as part of its green campus initiative. This involves planting 7810 trees of 21 different varieties under the TNRSP-II scheme. Bicycles are used for mobility within the campus and nearby areas. The institution also received the Best Green Campus Award in 2022 after conducting an energy/environment audit. To promote alternate energy sources for efficient energy consumption, the Institute has installed 30 solar streetlights on the campus, a water heating system for the hostel, and an automatic sensor-based water overflow indicator for the water tank. It has also installed a solar power plant with a capacity of 9.98 kWp. Additionally, compost pits are available at strategic locations inside the campus for solid waste, and oxidation ponds are available for liquid waste to ensure an efficient waste management system. Rainwater harvesting and borewell/Open well recharge systems are employed for effective water management.

Outreach activities:

The institution also engages in various outreach activities, such as holding blood donation camps through government hospitals in nearby villages, participating in “Gaja” cyclone relief funds, renovating government schools and rivers in nearby villages, and frequently visiting and fulfilling the needs of orphanages and nursing homes by collecting funds from faculty and students.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	GOVERNMENT COLLEGE OF ENGINEERING, SALEM
Address	NH44, Bangalore Highways
City	SALEM
State	Tamil Nadu
Pin	636011
Website	https://gcesalem.edu.in

Contacts for Communication					
Designation	**Name**	**Telephone with STD Code**	**Mobile**	**Fax**	**Email**
Principal	R. Vijayan	0427-2346157	9385534716	0427-2346458	principal@gcesalem.edu.in
IQAC / CIQA coordinator	S.sIvalakshmi	0427-2346102	9842888202	0427-2346458	iqac@gcesalem.edu.in

Status of the Institution	
Institution Status	Government

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minroity institution	No

Establishment Details	
Date of Establishment, Prior to the Grant of 'Autonomy'	01-06-1966

Date of grant of 'Autonomy' to the College by UGC	01-01-1970

University to which the college is affiliated		
State	**University name**	**Document**
Tamil Nadu	Anna University	View Document

Details of UGC recognition		
Under Section	**Date**	**View Document**
2f of UGC	30-01-2012	View Document
12B of UGC	03-08-2015	View Document

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)				
Statutory Regulatory Authority	**Recognition/Approval details Institution/Department programme**	**Day,Month and year(dd-mm-yyyy)**	**Validity in months**	**Remarks**
AICTE	View Document	15-05-2023	12	
AICTE	View Document	15-05-2023	12	
AICTE	View Document	15-05-2023	12	
AICTE	View Document	15-05-2023	12	
AICTE	View Document	15-05-2023	12	

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

Location and Area of Campus				
Campus Type	**Address**	**Location***	**Campus Area in Acres**	**Built up Area in sq.mts.**
Main campus area	NH44, Bangalore Highways	Rural	231.46	26764

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,Civil Engineering,	48	HSC	English	120	116
UG	BE,Mechanical Engineering,	48	HSC	English	120	119
UG	BE,Electrical And Electronics Engineering,	48	HSC	English	60	60
UG	BE,Metallurgical Engineering,	48	HSC	English	60	55
UG	BE,Electronics And Communication Engineering,	48	HSC	English	60	57
UG	BE,Computer Science And Engineering,	48	HSC	English	60	58
PG	ME,Civil Engineering,Structural Engineering	24	BE OR BTECH	English	18	14
PG	ME,Mechanical Engineering,Computer	24	BE OR BTECH	English	18	4

	Aided Design					
PG	ME,Mechanical Engineering,Thermal Engineering	24	BE OR BTECH	English	18	6
PG	ME,Electrical And Electronics Engineering,Power Electronics and Drives	24	BE OR BTECH	English	18	12
PG	ME,Metallurgical Engineering,Welding Technology	24	BE OR BTECH	English	18	3
PG	ME,Electronics And Communication Engineering,Communication Systems	24	BE OR BTECH	English	18	5

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	14				25				87			
Recruited	5	6	0	11	12	10	0	22	29	31	0	60
Yet to Recruit	3				3				27			
Sanctioned by the Management/Society or Other Authorized Bodies	0				4				3			
Recruited	0	0	0	0	4	0	0	4	2	1	0	3
Yet to Recruit	0				0				0			

Non-Teaching Staff				
	Male	**Female**	**Others**	**Total**
Sanctioned by the UGC /University State Government				41
Recruited	13	5	0	18
Yet to Recruit				23
Sanctioned by the Management/Society or Other Authorized Bodies				0
Recruited	0	0	0	0
Yet to Recruit				0

Technical Staff				
	Male	**Female**	**Others**	**Total**
Sanctioned by the UGC /University State Government				106
Recruited	51	18	0	69
Yet to Recruit				37
Sanctioned by the Management/Society or Other Authorized Bodies				0
Recruited	0	0	0	0
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	5	6	0	15	9	0	7	17	0	59
M.Phil.	0	0	0	0	0	0	2	1	0	3
PG	0	0	0	1	1	0	7	10	0	19
UG	0	0	0	0	0	0	0	0	0	0

Temporary Teachers										
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
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	1	0	0	1
M.Phil.	0	0	0	0	0	0	3	0	0	3
PG	0	0	0	0	0	0	11	4	0	15
UG	0	0	0	0	0	0	0	0	0	0

Part Time Teachers										
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
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**	**Others**	**Total**
	0	0	0	0

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

Programme		**From the State Where College is Located**	**From Other States of India**	**NRI Students**	**Foreign Students**	**Total**
UG	Male	1201	25	0	0	1226
	Female	654	5	0	0	659
	Others	0	0	0	0	0
PG	Male	47	0	0	0	47
	Female	29	0	0	0	29
	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	47	53	53	49
	Female	35	20	28	30
	Others	0	0	0	0
ST	Male	4	1	4	2
	Female	0	3	0	2
	Others	0	0	0	0
OBC	Male	224	221	205	183
	Female	114	92	143	159
	Others	0	0	0	0
General	Male	11	11	4	8
	Female	2	4	1	3
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		437	405	438	436

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Civil Engineering	View Document
Computer Science And Engineering	View Document
Electrical And Electronics Engineering	View Document
Electronics And Communication Engineering	View Document
Mechanical Engineering	View Document
Metallurgical Engineering	View Document

Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	Multidisciplinary refers to the involvement of multiple disciplines or areas of study in a research project or endeavour. This can involve combining knowledge and expertise from different fields to address a complex problem or issue. Interdisciplinary refers to the integration of knowledge and approaches from multiple disciplines to create a new field of study or to solve a problem that cannot be addressed within a single discipline. This often involves combining concepts and methods from different fields to create a more holistic understanding of a topic or issue. The motto of the Government College of Engineering, Salem is to provide such a multidisciplinary platform with a comprehensive range of programs at a global standard in Engineering and Technology. Concerning the current need of the industrial sector, numerous interdisciplinary courses are offered under Choice Based Credit System (CBCS). The courses cover a wide range including Basic Science & Humanities, Professional core and electives, open electives, employability enhancement courses, and mandatory courses. Industry internships, courses oriented to industry, online industrial courses, and industrial mentorship are all available as part of the curriculum. Students may choose open electives and core electives according to NEP 2020 policy to support multidisciplinary education. As an innovative initiative, selected students of the 6th semester from various departments are offered industry-based training for the whole semester called Protosem. Forge is the company partner that offers the training for the students. It aims at offering real-time problem-solving training for the students and equipping them with the necessary skills to tackle such situations when faced in the industry. Overall, the institute is committed to developing the capacities of its students in an integrated manner as outlined in the National Education Policy 2020.
2. Academic bank of credits (ABC):	Steps have been taken to create awareness among the students of the institution about the existence of ABC (Academic Bank of Credit). Initial efforts to implement ABC to digitally store the academic credits earned by the students and the process to do so has been set in motion. The representatives have been given the responsibility to assist the students in

	this matter.
3. Skill development:	The existing curriculum of the institution places more importance on learning by doing. As a part of it Student Internship Training Program in industry is made mandatory for all Undergraduate students. Such students are granted funds by the State Government for participating in the internship training program. There is a visible enhancement in the students' employability skills through this initiative. The Government of Tamil Nadu and the Department of Skill Development introduced a scheme named 'Naan Mudalvan' to all college students. As a part of the programme all the 4 year UG students of the institutions were trained in various skill development courses through online mode. Expert lectures were made available for the students and achievement tests were conducted to assess the students' achievement and feedback was given accordingly. InnovateTN was another skill development initiative implanted in the institution. It is also known as Proto-Sem in which selected students were given training on how to tackle everyday issues in the current industrial scenario. The students were free to choose their field of interest and to complete projects in teams. Employability skill training programs were conducted to improve the student's employability skills.
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	Paying respect and reverence to nature is a major Indian way of life. To integrate it into the minds of the students at their younger age, Environmental Science and Engineering have been made mandatory courses in the CBCS curriculum. It provides an insight into the current lifestyle and its exploiting of nature. It also aims to make the students, environmentally responsible citizens. Universal human values is another paper introduced in the first semester of UG. The paper aims to create awareness among the students on the concepts of Human Values, Happiness, Professional Ethics, and Environmental awareness. In the 22 regulations, 2 papers on Tamil were introduced to make the students understand that it is their responsibility to maintain the glorious tradition of Tamil culture. TLA is the club in GCE Salem that aims to support students who are creative and expressive in Tamil verbal arts. In the academic year 2022-2023, the club published magazines and books in Tamil complied

	and contributed by the students of the institution.
5. Focus on Outcome based education (OBE):	The objectives of OBE are implemented in the following ways in our Institution. Program Educational Objectives (PEOs), Program Outcomes (POs), and Course Outcomes (COs) are conceptualized holistically and are assessed and achieved. Development of Program Outcomes and Program Educational Objectives in alignment with departmental and institute missions and visions. Setting up a mapping between the PO and the PEO. Planning and developing course outcomes for each course, such as theory subjects, projects, surveys, etc. An assessment of both internal and external assessments is used to calculate Net CO attainment. Evaluation of program outcomes based on actual and expected outcomes. Finally, batch-wise comparisons of POs and PEOs are carried out as well as the attainment of PEOs. Assessment of Outcome Based Education has been enhanced by the successful attainment of PEOs and POs. Furthermore, the attainment is also helpful to the institute to review its PO, PEO, and Vision and Mission in the future.
6. Distance education/online education:	A number of the faculty members are proficient in developing electronic content and in using technological tools, as well as teaching-learning strategies, as part of their teaching-learning process. To facilitate academic practice and to apply innovative teaching methods, the institution has a learning management system (LMS). A new addition to the numerous technical advancements in the institution is the AR/VR Lab. The lab has provided the opportunity for interested students to do projects using the advanced software. The students have come up with many innovative augmented and Virtual reality projects that have helped them to be digitally updated and ready for the expectations of the companies that look to hire students. To be able to provide the best possible learning environment for the students, the department and the institution provide high-quality assistance to students regarding their academic and career development. The department and the institution have arranged sessions on a variety of components such as career opportunities, GATE awareness, and education abroad. By participating in technical and non-technical events, such as national and international conference presentations, hackathons, project design

	contests, etc., students are encouraged to interact with the outside world. Aside from facilitating personal achievement and insight, NEP's mission is to promote active participation in public activities and a productive contribution to society as listed in its policy. All engineering programs must comply with the AICTE model curriculum outlined in Regulation 2022 based on the CBCS curriculum and the syllabi of all engineering programs. To facilitate the delivery of a multidisciplinary education according to NEP policy, students are encouraged to select open electives as well as professional electives that are of interest to them. As a result of the involvement of various clubs and organizations in and across the university, numerous events are held throughout the year for the students to actively participate in. Students and staff members are encouraged to update themselves in the current fields by doing courses in NPTEL and SWAYAM. The institution also serves as the local chapter for NPTEL and SWAYAM

Institutional Initiatives for Electoral Literacy

1. Whether Electoral Literacy Club (ELC) has been set up in the College?	YES
2. Whether students' co-ordinator and co-ordinating faculty members are appointed by the College and whether the ELCs are functional? Whether the ELCs are representative in character?	Yes, the coordinators are appointed by the college.
3. What innovative programmes and initiatives undertaken by the ELCs? These may include voluntary contribution by the students in electoral processes-participation in voter registration of students and communities where they come from, assisting district election administration in conduct of poll, voter awareness campaigns, promotion of ethical voting, enhancing participation of the under privileged sections of society especially transgender, commercial sex workers, disabled persons, senior citizens, etc.	We made the students and the locals assemble in a hall that consists of computers to apply for voter ID for those who didn't have one.
4. Any socially relevant projects/initiatives taken by College in electoral related issues especially research projects, surveys, awareness drives, creating content,	Yes, we did.

publications highlighting their contribution to advancing democratic values and participation in electoral processes, etc.	
5. Extent of students above 18 years who are yet to be enrolled as voters in the electoral roll and efforts by ELCs as well as efforts by the College to institutionalize mechanisms to register eligible students as voters.	Yes, we aided the students in applying for voter ID and also assisted them with neat instructions.

Extended Profile

1 Students

1.1

Number of students on rolls year wise during last five years

2022-23	2021-22	2020-21	2019-20	2018-19
1937	1962	1934	1978	2050

File Description	Document
Provide Links for any other relevant document	View Document
Institutional data in the prescribed format (data	View Document

1.2

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

2022-23	2021-22	2020-21	2019-20	2018-19
529	527	523	540	593

File Description	Document
Provide Links for any other relevant document	View Document
Institutional data in the prescribed format (data	View Document

2 Teachers

2.1

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

2022-23	2021-22	2020-21	2019-20	2018-19
100	101	102	99	91

File Description	Document
Institutional data in the prescribed format	View Document
Certified list of full time teachers	View Document

2.2

Total number of full time teachers worked/working in the institution (without repeat count) during last five years:

Response: 112

File Description	Document
Provide Links for any other relevant document	View Document
Institutional data in the prescribed format	View Document

3 Institution

3.1

Total expenditure excluding salary year wise during the last five years (INR in lakhs)

2022-23	2021-22	2020-21	2019-20	2018-19
770.75	84.08	216.64	596.92	192.41

File Description	Document
Provide Links for any other relevant document	View Document

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curriculum Design and Development

1.1.1

Curricula developed and implemented have relevance to the local, regional, national, and global developmental needs, which is reflected in the Programme outcomes (POs) and Course Outcomes(COs) of the Programmes offered by the institution

Response:

Formulation of Vision and Mission PEOs, POs, PSOs:

The curriculum design and development process is influenced by policy changes in the Department of Higher Education and AICTE, as well as the vision and mission of the institute. Inputs are gathered from various stakeholders, and critical features are considered.

Policy changes typically begin with AICTE or the Department of Higher Education and are defined by the institute’s vision and mission. The Department Level Committee (DLC) and Program Advisory Committee (PAC) then consider the institute’s vision and mission and contributions from stakeholders such as

- Faculty
- Academic experts
- Industry experts
- Employers
- Students
- Alumni
- Parents.

In addition to these inputs, the DLC considers vital features, including engineering knowledge, local, regional, national, and global standards exposure, industrial demands, employability/entrepreneurship, skill development, and cross-cutting issues such as professional ethics and universal human values.

Based on all these inputs, the department's vision and mission are formulated to align with the institute's vision and mission. The educational objectives (PEOs), program outcomes (POs), and program-specific outcomes (PSOs) are derived and proposed by the PAC and presented to the Board of Studies (BOS).

BOS comprises of,

- University Nominee
- Subject Experts
- Industrial Experts

- Alumni
- All department faculties
- Student

The BOS reviews these elements, and each program's vision, mission, POs, PSOs, and PEOs are developed or revised as required. The Academic Council approves this, and the finalized vision, mission, PEOs, POs, and PSOs are published and disseminated.

Process of Drafting Curriculum:

The draft curriculum is developed based on inputs from stakeholders by the DLC and PAC. Within this draft curriculum, objectives and outcomes for each course (COs) are articulated to gauge the effectiveness of course delivery.

The curriculum is then deliberated during a BOS meeting, where suggestions and comments are carefully considered and incorporated. Following BOS recommendations, the curriculum is proposed to the Academic Council for approval. Once approved, the definitive curriculum and syllabus are formalized.

The curriculum is implemented through the teaching, learning, and evaluation processes. Feedback is solicited from stakeholders, and CO and PO attainment is monitored to assess the effectiveness of the curriculum.

The Department Advisory Committee offers additional supervision and advice based on the performance metrics of COs and POs obtained. The curriculum undergoes regular reviews against the backdrop of CO/PO attainment and student progression to prompt any essential modifications during the implementation of each regulation.

This iterative process ensures that the curriculum maintains its relevance and effectiveness.

File Description	Document
Upload Additional information	View Document

1.1.2

The programmes offered by the institution focus on employability/ entrepreneurship/ skill development and their course syllabi are adequately revised to incorporate contemporary requirements

Response:

The institution strongly emphasizes enhancing employability, entrepreneurship, and skill development through thoughtfully crafted programs. In employability, core papers are meticulously designed to equip students with essential skills across all programs. Beyond their engineering program, students are

encouraged to explore diverse subjects of interest from various departments through open electives, enriching their employability skills.

List starting number of open electives offered by each program is given below.

S.No	Department	No. of Open Electives (R2018)	No. of Open Electives (R2022)
1.	Civil Engineering	4	4
2.	Computer Science Engineering	10	9
3.	Electronics and Communication Engineering	6	7
4.	Electrical and Electronics Engineering	4	4
5.	Mechanical Engineering	7	9
6.	Metallurgical Engineering	4	5

The curriculum extends beyond conventional academic domains, incorporating Lab courses, Professional Ethics, Human Values, Principles of Management, Protosem courses, and other value-added courses to foster entrepreneurial skills. Skill development, leadership, and teamwork are ingrained through a multifaceted approach, encompassing Lab courses, mini-projects, mandatory internships, and credit transfer options for MOOC courses.

The institution's commitment to staying contemporary is evident in its syllabus revision cycle, where suggestions from Board of Studies members are meticulously considered. This dynamic approach ensures that students are equipped with the latest skills, enhancing their preparedness for the evolving demands of the professional landscape.

Value-added courses are provided through the Naan Mudhalvan Scheme, which focuses on employability and skills development. These courses are made mandatory for II-year students admitted in the academic year 2021 onwards. Students from the 2nd to the 7th semester study one course each semester, accounting for two credits.

Under the Naan Mudhalvan scheme, a course named 18NTMC01 – Professional Readiness for Innovation, Employability, and Entrepreneurship by IBM, was introduced for the VII semester students in the academic year 2022 – 2023 in the specific name Naalaiya Thiran scheme. All the 7th-semester students from Electronics and Communication Engineering and Computer Science Engineering studied this course and submitted projects relating to real-time problem statements available in the industries. Mentors and evaluators are allocated to each team from college and industry for efficient completion of projects.

Innovate TN lab: Protosem courses is a Tamil Nadu government initiative for enhanced experiential and industrial learning. Courses under the Innovate TN Lab, aligned with the 2022 regulations of GCE, Salem, include Ideation Sprints, Design Sprints, Engineering Sprints, and Innovation Sprints, and amended in the 2018 curriculum for second and third-year students. PROTSEM Courses are now available for all departments in the sixth semester (45 students were selected based on their performance in the four courses given above). The Innovate TN Lab trains students with personalized experiences, technical mentoring, and exposure to various cutting-edge technologies. An investment of Rs. 53.37

lakhs facilitated the establishment of the Innovate TN Lab at GCE, Salem.

File Description	Document
Upload 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 programmes offered during the last five years

Response: 20.35

1.2.1.1 **Number of new courses introduced during the last five years:**

Response: 198

1.2.1.2 **Consolidated number of courses offered by the institution across all Programmes (without repeat count) during the last five years :**

Response: 973

File Description	Document
Subsequent Academic Council meeting extracts endorsing the decision of BOS	View Document
Minutes of Board of Studies meeting clearly specifying the syllabus approval of new courses	View Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

1.3 Curriculum Enrichment

1.3.1

Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability and other value framework enshrined in Sustainable Development Goals and National Education Policy – 2020 into the Curriculum

Response:

The college is integrating crosscutting issues into its undergraduate and postgraduate programs. These issues include professional ethics, gender, human values, environmental engineering, and sustainability. The curriculum fosters empathy, respect for diversity, and a deep understanding of sustainability and human values.

By including subjects related to professional ethics, the college ensures its students have a solid moral compass to help them make principled decisions in their future careers. The courses related to these issues are offered under the Humanities and Social Sciences category, including Management courses with six credits and Audit courses.

Mentoring is an integral part of universal human values, and hence, the faculty members are encouraged to undergo training programs, some of which are conducted by AICTE.

In addition to this, the college provides the following courses under the category of Mandatory Courses (MC) in R2018 and R2022:

• The Induction Program is a 21-day course that helps students explore human relationships, the role of money in life, and building character.

• Constitution of India, which addresses gender issues.

In R2022, Universal Human Values is offered in the first semester for undergraduate programs.

Environmental Sciences courses are offered for all undergraduate and postgraduate programs under MC and Audit Courses (AC). These courses aim to expose students to environmental engineering and societal sustainability issues. The following courses are provided under MC:

• Environmental Sciences

• Disaster Management

• Disaster Preparedness & Planning

Professional Elective courses, especially for Environmental Engineering, are offered under the faculty of Civil Engineering. These courses include:

• Industrial Waste Management

• Hazardous Waste Management

• Air Pollution Monitoring and Control

• Municipal Solid Waste Management

• Marine Pollution Monitoring and Control

• Environmental Impact Assessment

Under the faculty of Civil Engineering, some Open Electives, especially for environmental engineering, are offered. Students from other programs can also take these courses. The following Open Electives are offered in the faculty of Civil Engineering:

- Environmental Management
- Disaster Mitigation and Management

By embedding these crosscutting issues, the institution aims to prepare students to excel in their careers while being conscientious, empathetic, and environmentally aware. The college plays a pivotal role in shaping future leaders who are poised to make a positive impact on society and the world.

File Description	Document
Upload Additional information	View Document

1.3.2

Number of certificate/value added courses/Diploma Programmes offered by the institutions and online courses of MOOCs, SWAYAM/e-PG Pathshala/ NPTEL and other recognized platforms (without repeat count) where the students of the institution have enrolled and successfully completed during the last five years.

Response: 128

File Description	Document
List of students and the attendance sheet for the above mentioned programs	View Document
Institutional programme brochure/notice for Certificate/Value added programs with course modules and outcomes	View Document
Institutional data in the prescribed format (data template)	View Document
Evidence of course completion, like course completion certificate etc	View Document

1.3.3

Percentage of programmes that have components of field projects / research projects / internships during the last five years.

Response: 100

1.3.3.1 **Total Number of programmes that have components of field projects / research projects / internships (without repeat count) during the last five years**

Response: 12

1.3.3.2 **Total Number of programmes offered (without repeat count) during the last five years**

Response: 12

File Description	Document
Sample Internship completion letter provided by host institutions	View Document
Sample Evaluated project report/field work report submitted by the students	View Document
Program and course contents having element of field projects / research projects / internships as approved by BOS	View Document
Institutional data in the prescribed format (data template)	View Document

1.4 Feedback System

1.4.1

Structured feedback for curriculum and its transaction is regularly obtained from stakeholders like Students, Teachers, Employers, Alumni, Academic peers etc., and Feedback processes of the institution may be classified as follows:

Response: A. Feedback collected, analysed, action taken & communicated to the relevant bodies and feedback hosted on the institutional website

File Description	Document
Feedback analysis report submitted to appropriate bodies	View Document
At least 4 filled-in feedback form from different stake holders like Students, Teachers, Employers, Alumni etc.	View Document
Action taken report on the feedback analysis	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document
Link of institution’s website where comprehensive feedback, its analytics and action taken report are hosted	View Document

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1

Enrolment percentage

Response: 82.31

2.1.1.1 **Number of seats filled year wise during last five years (Only first year admissions to be considered)**

2022-23	2021-22	2020-21	2019-20	2018-19
468	457	428	518	534

2.1.1.2 **Number of sanctioned seats year wise during last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
588	588	588	588	570

File Description	Document
Provide the relevant information in institutional website as part of public disclosure	View Document
Institutional data in the prescribed format (data template)	View Document
Final admission list as published by the HEI and endorsed by the competent authority	View Document
Document relating to sanction of intake as approved by competent authority	View Document

2.1.2

Percentage of seats filled against reserved categories (SC, ST, OBC etc.) as per applicable reservation policy for the first year admission during the last five years

Response: 85.57

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

2022-23	2021-22	2020-21	2019-20	2018-19
382	325	322	340	357

2.1.2.2 **Number of seats earmarked for reserved category as per GoI/State Govt. rule year wise during the last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
406	406	406	406	393

File Description	Document
Provide the relevant information in institutional website as part of public disclosure	View Document
Institutional data in the prescribed format (data template)	View Document
Final admission list indicating the category as published by the HEI and endorsed by the competent authority.	View Document
Copy of the letter issued by the State govt. or Central Government Indicating the reserved categories(SC, ST, OBC, Divyangjan, etc.) to be considered as per the state rule (Translated copy in English to be provided as applicable)	View Document

2.2 Catering to Student Diversity

2.2.1

The institution assesses the learning levels of the students and organises special Programmes to cater to differential learning needs of the student

Response:

The Government College of Engineering in Salem has offered a Choice-based Credit System since 2016, allowing students to choose their courses. At the start of the first semester, the institution runs a 21-day induction program that helps to assess student needs and promote engagement between students, faculty, and peers. Throughout the semester, students are evaluated through testing, assignments, projects, and class interactions to ensure a thorough assessment of their understanding and needs. The Class Committee meets thrice a semester, and **a Mentoring System** addresses the challenges both slow and

advanced learners face, **academically and personally.** The mentor-to-student ratio for academics is 20:1, while the student-teacher ratio is 19:1.

Programmes for slow learners:

For slow learners, students with less than 50% in internal assessments and low proficiency in English, the institution offers special English language classes to help bridge the gap and improve overall communication skills. In addition to that few students who had studied their schooling in regional languages are identified and given special English language classes too. Additionally, revising technical terms in subjects like maths, physics, and chemistry helps these students better grasp the concepts taught in English. Remedial classes are conducted as and when weak topics are identified, and programs like Communicative English and Aptitude sessions are conducted for them. They are offered Skill Development and Placement Training and motivated to participate in programs conducted for competitive exams like GATE/Govt. Exams, etc. These students are encouraged to undergo foreign language training in German, Japanese, and French, helping to provide each student with the proper support and guidance, considering their unique learning styles and challenges.

Programmes for Advanced learners:

For advanced learners, students who have scored over 50% in internal assessments, high proficiency in English language, and more than 7.5 CGPA, the institution offers an opportunity for more advanced and specialized study in their chosen field for B.E. (Honours) or Minor in any other program for enhancing learning experiences in diverse domains at the end of the fourth semester. UG students can undergo six extra courses to become eligible for the B.E. Honors or Minor award in any other branch. The fast-track system allows students to complete all courses in the pre-final semester, helping them take up industrial projects during the final semester. They can register for SWAYAM/MOOC Courses and participate in seminars, conferences, workshops, and national/international hackathons. These students are motivated to prepare for competitive exams like GATE, CAT, UPSC, GRE, TOEFL, and IELTS. They are offered foreign language training in German, Japanese, and French, and the faculty members help them get their project work published.

File Description	Document
Upload Any additional information	View Document

2.2.2

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

Response: 19.37

File Description	Document
List showing the number of students in each of the programs for the latest completed academic year across all semesters	View Document
Certified list of full time teachers along with the departmental affiliation in the latest completed academic year.	View Document
Provide Links for any other relevant document to support the claim (if any)	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 experience and teachers use ICT- enabled tools including online resources for effective teaching and learning process

Response:

1. Experiential learning

1.1 Internship:

GCE Salem provides various experiential learning opportunities to its students to enhance their skills beyond classroom learning. One such opportunity is the internship, a mandatory course with a credit of 1 in the curriculum. Students must undergo internships during the V and VI semesters.

1.2 Project based Learning (Naalaiya Thiran courses)

- Naalaiya Thiran project-based learning courses, a joint initiative of Anna University, ICT Academy of Tamil Nadu, NASSCOM, and IBM, supported by the Tamil Nadu Skill Development Corporation under the Naan Mudalvan Scheme of the Govt. of Tamil Nadu. Inculcating experiential project-based learning.
- These courses aim to teach experiential project-based learning.
- Students are assessed and evaluated through a unique course called "Professional Readiness for Innovation, Employability, and Entrepreneurship," under the EEC (Employment Enhance Course) category elective course.
- This course adds three credits to the curriculum for students in their 7th semester of the 2018 regulations and involves 90 hours of technical and professional training and implementation of real-world projects. The initiative is currently available for two departments - CSE and ECE.

1.3 Naan Mudhalvan courses

The Naan Mudhalvan courses are employability enhancement skill-based mandatory/value-added

courses, with 32 courses in 2022-2023, including Industry 4.0, AR& VR, Robotics, and IOT, which are theory-integrated laboratory courses in the V and VII semesters.

1.4 Innovate TN lab:

- For innovation and advanced industrial technology skills, the Innovate TN lab was launched at GCE Salem by the Directorate of Technical Education in partnership with CIBI-FORGE and sponsored by TANSIM. It features four sprint courses, each one credit, for R2018, 2018A, and R2022 students, spanning the second to fifth semesters under EEC.

1.5 Industrial Visit and Industrial Project

Industrial visits and projects are optional but encouraged. Students can visit industries every semester starting from the third and can choose to do an industrial project.

2. Participative learning

2.1 Technical Seminar

The PG students must complete two technical seminars over two semesters to enhance self-study skills and prepare technical reports on specific topics.

2.2 Learning through various social activities and technical association events:

Students are encouraged to enhance their skills beyond classroom learning by joining social and technical clubs, such as

- Standards Club
- Environmental Club
- Rotary Club and
- Technical association events

3. Problem-solving methodologies are used to enhance learning experiences

3.1 Assignments and Tutorials:

Assignments and tutorials are crucial for internal assessment, and students must attend tutorial classes for collaborative and active learning for theory courses with four credits. These classes help students apply theory, practice applications, and improve critical thinking.

3.2 Mini Project and Project work:

Integrating projects in EEC courses aims to solve real-time problems using engineering principles for product design, fabrication, modeling, and coding. It encourages teamwork, effective communication

through reports and presentations, and awareness of societal and environmental contexts.

4. NPTEL & ICT- enabled Courses:

Students are encouraged to do NPTEL courses to expose themselves to problem-solving techniques, and the help of ICT-enabled tools proves that outcome-based education implemented at GCE Salem is student-centric.

File Description	Document
Upload any additional information	View Document

2.3.2

The institution adopts effective Mentor-Mentee Schemes to address academics and student-psychological issues

Response:

Overview of the Mentor-Mentee Scheme

The Mentor-Mentee Scheme is a well-structured program that focuses on creating a supportive student environment. The program's architecture is well thought out, and it facilitates regular interactions between mentors and mentees, including personalized counseling sessions for holistic development. The program's commendable mentor-to-student ratio of 20:1 is a strategic measure to ensure personalized attention for every student enrolled. This creates an environment where students feel valued and supported throughout their academic journey, leading to better academic outcomes and personal growth.

Program Structure and Implementation

The Mentor-Mentee Scheme is a well-structured program that focuses on creating a supportive student environment. The program's architecture is well thought out, and it facilitates regular interactions between mentors and mentees, including personalized counseling sessions for holistic development. The program's commendable mentor-to-student ratio of 20:1 is a strategic measure to ensure personalized attention for every student enrolled. This creates an environment where students feel valued and supported throughout their academic journey, leading to better academic outcomes and personal growth.

Supporting Academic and Personal Development

The program's focus on boosting student growth through focused mentorship is crucial in spotting and tackling various issues that students face. Mentors are vital in guiding students through academic obstacles, such as underperformance and language skills, and more nuanced problems, such as motivation and study methods. This active mentorship reveals students' abilities and steers them toward academic success and significant personal growth.

Structured Counselling and Monitoring

One of the integral components of this mentor-mentee framework is implementing a structured counselling form, a strategic initiative by the Internal Quality Assurance Cell (IQAC). This tool is pivotal in meticulously documenting and monitoring counselling sessions, enabling a systematic approach to identifying challenges and tracking progress. Such structured documentation is invaluable for tailoring interventions that meet students' needs.

Outcomes and Impact on Students

The multifaceted mentor-mentee scheme is a testament to the college's commitment to fostering an environment where students thrive academically, emotionally, and socially. It underscores the transformative power of personalized mentorship and counselling in sculpting well-rounded individuals. Through this initiative, the Government College of Engineering in Salem aspires to enhance academic outcomes and cultivate a generation of student’s adept at overcoming life's challenges.

The Mentor-Mentee Scheme, developed by the Government College of Engineering in Salem, is a revolutionary program designed to create a supportive educational ecosystem. The program offers more than just academic guidance, catering to the multifaceted needs of students, including psychological well-being. The institution pairs mentors with students across various engineering disciplines, aiming to elevate academic standards, foster personal growth, and mitigate psychological adversities that students might encounter during their college tenure.

File Description	Document
Upload any additional information	View Document
List of Active mentors	View Document

2.3.3

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

Describe the Preparation and adherence to Academic Calendar and Teaching plans by the institution.

Response:

Academic Calendar:

At the beginning of each academic year, our Institute's Controller of Examination (COE) takes great care in creating an academic calendar shared with the Head of the Department, faculty, students, and administrative staff. This calendar provides essential information, including:

- **Institution's Vision and Mission:** The foundational principles and objectives that guide our educational and community activities.
    - **Academic Schedule:** Details for all odd semesters for both undergraduate and postgraduate programs, including the start dates for classes, class timings, dates and times

for internal tests, periods allocated for class committee meetings, start dates for lab exams, and the tentative start dates for end-of-semester exams. The schedule for the even semesters is provided after the odd semester exams conclude.

- **Constitutional Data:** Includes pledges, the National Anthem, and Tamizh Thai Vazhthu.
- **Committee Information:** Offers information about the anti-ragging committee, including contact details and information on all other college committees and councils.
- **Monthly Planner and Contacts:** Monthly planner sheets for personal organization and detailed contact information for all faculty members and non-teaching staff (including email addresses, phone numbers, and intercom numbers) to facilitate better communication.
- **College Overview:** A brief college history, rules and regulations, fee structures for all programs, and scholarship information.
- **Emergency Contacts:** Important contact information for nearby emergency services, such as police stations, ambulances, hospitals, and transportation services.

Teaching Plan:

Once the academic schedule has been disseminated, the following sequence of activities takes place at the department level:

- **Faculty Subject Assignment:** Subjects are assigned to faculty members before the commencement of every semester/the end of the previous semester.
- **Timetable Creation:** A semester timetable is prepared, assigned to class advisors, and distributed among faculty members and lab technicians.
- **Collection of Student Lists:** Students' list is obtained from the COE.
- **Lesson Plan Development:** Each faculty member creates a lesson plan for their course, outlining the expected outcomes of every chapter.
- **Inclusion of Departmental Goals in Lesson Plans:** Lesson plans include the department's vision and mission, detailed outcomes for each unit, and how these align with program outcomes and educational objectives. They specify what topics will be covered and when.
- **Lesson Plan Approval and Distribution:** After approval and signature by the Department Head, the lesson plan is shared with students enrolled in the course.

File Description	Document
Upload any additional information	View Document

2.4 Teacher Profile and Quality

2.4.1

Average percentage of full time teachers appointed against the number of sanctioned posts year wise during the last five years

Response: 79

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

2022-23	2021-22	2020-21	2019-20	2018-19
126	126	126	126	126

File Description	Document
Sanction letters indicating number of posts sanctioned by the competent authority (including Management sanctioned posts).	View Document
Provide the relevant information in institutional website as part of public disclosure	View Document
Institutional data in the prescribed format (data template merged with 2.4.3 and 2.4.4)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.4.2

Percentage of full time teachers with Ph.D./D.Sc. / D.Litt./ L.L.D during the last five years

Response: 61.61

2.4.2.1 **Number of full time teachers with *Ph.D./D.Sc. / D.Litt./ L.L.D* during the last five years**

Response: 69

File Description	Document
List of faculty having Ph.D./D.Sc. / D.Litt./ L.L.D along with particulars of the degree awarding university, subject and the year of award per academic year.	View Document
Institutional data in the prescribed format (data template merged with 3.2.3 and 3.4.2)	View Document
Copies of Ph.D./D.Sc. / D.Litt./ L.L.D awarded by UGC recognized universities	View Document

2.4.3

Average teaching experience of full time teachers (Data to be provided only for the latest

completed academic year, in number of years)

Response: 15.04

2.4.3.1 **Total teaching experience of full-time teachers as of latest completed academic year**

Response: 1504

File Description	Document
Institutional data in the prescribed format (data template merged with 2.4.1 and 2.4.4)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.4.4

Percentage of full time teachers working in the institution throughout during the last five years

Response: 90.11

2.4.4.1 **Number of full time teachers worked in the institution throughout during the last five years:**

Response: 82

File Description	Document
Institutional data in the prescribed format (data template merged with 2.4.1 and 2.4.3)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.5 Evaluation Process and Reforms

2.5.1

Average number of days from the date of last semester-end/ year- end examination till the last date of declaration of results during the last five years

Response: 30

2.5.1.1 ***Number of days from the date of last semester-end/ year- end examination till the declaration of results year-wise during the last five years***

2022-23	2021-22	2020-21	2019-20	2018-19
44	38	33	17	18

File Description	Document
Result Sheet with date of publication	View Document
Policy document on Declaration of results (if any)	View Document
Institutional data in the prescribed format (data template)	View Document
Exam timetable released by the Controller of Examination	View Document

2.5.2

Percentage of student complaints/grievances about evaluation against total number appeared in the examinations during the last five years

Response: 2.05

2.5.2.1 **Number of complaints/grievances about evaluation year wise during last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
61	83	0	0	71

2.5.2.2 **Number of students appeared in the examination conducted by the institution year wise during the last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
1955	2031	2133	2147	2215

File Description	Document
List of students who have applied for re-valuation/re-totaling program wise certified by the Controller of Examinations year-wise for the assessment period.	View Document

2.5.3

IT integration and reforms in the examination procedures and processes including Continuous

Internal Assessment (CIA)/Formative Assessment have brought in considerable improvement in Examination Management System (EMS) of the Institution

Describe the examination reforms with reference to the following within a minimum of 500 words

- **Examination procedures**
- **Processes integrating IT**
- **Continuous internal assessment system**

Response:

Processes integrating IT:

- Gathering student data, course registration, and entry into the Examination Management System.
- Collection of tuition fees.
- Provision for students to enroll in credit transfer programs through SWAYAM-NPTEL.
- Calculation and collection of examination fees.
- Issuance of question paper setting orders by the Controller of Examinations.
- Scheduling of examination timetables.
- Dispatching of valuation orders by the Controller of Examinations.
- Entry of marks into the Examination Management System following valuation.
- Preparation of preliminary results in the Examination Management System.
- Finalization of results after moderation.
- Generation and distribution of individual and consolidated mark sheets to students.
- Quick dissemination of information to all stakeholders on institutional websites, such as:
    - Publishing the examination timetable on the institution's website.
    - Posting exam seating arrangements on the website.
    - Announcing results on the institution's website following approval by the result-passing board.
    - Conducting feedback analysis and sharing the action taken report on the institution's website.

Continuous Internal Assessment (CIA):

Faculty members assigned to courses record all Continuous Internal Assessment (CIA) marks and students' attendance in their respective classes. After each internal assessment, faculty advisors compile the attendance records and CIA marks for each student in their courses. These records are then printed and submitted to the Controller of Examinations (COE), with the approval signature of the Head of Department (HoD). The COE office inputs these details into their system. At the end of the semester, faculty advisors submit a hard copy of the consolidated attendance and CIA marks to the COE. These details are then digitized and incorporated into the system. The digital records of attendance and CIA marks are subsequently transferred to the result processing system for further action.

Reforms in the Examination procedures:

- Incorporation of Bloom's Taxonomy in internal and end-semester examinations, covering all relevant levels to assess various cognitive skills thoroughly.
- Scrutinizing the end-of-semester question paper before conducting the exams.

- Allocation of 40% of the marks to continuous assessment and 60% to end-semester examinations for theory courses in the R2018 curriculum.
- Allocation of 40% of the marks to continuous assessment and 60% to end-semester examinations for practical courses in the R2018 curriculum.
- Adjusting weightage to 60% for continuous assessment and 40% for end-semester examinations for practical courses in the R2022 curriculum.
- Implementing a barcoding system for answer books to maintain confidentiality and integrity.
- Introducing relative grading following AICTE norms starting from 2021 to ensure fair assessment standards.

Online Examination and Digital Evaluation System:

Implementation and evaluation of online examinations at GCE, Salem, during the COVID-19 period, encompassing several phases from initial preparations to paper evaluation. The process of the online examination includes multiple stages, outlined as follows:

- Pre-examination preparations.
- Distribution of instructions and communications.
- Conduct of mock tests.
- Online evaluation procedure.
- Management of faculty login credentials and access.

File Description	Document
Upload any additional information	View Document

2.6 Student Performance and Learning Outcomes

2.6.1

The institution has stated learning outcomes (programme and course outcome)/graduate attributes which are integrated into the assessment process and widely publicized through the website and other documents and the attainment of the same are evaluated by the institution

Response:

Publicizing the Learning Outcomes

The Government College of Engineering Salem has implemented a choice-based credit system since 2016, upgraded and integrated with all teaching, learning, and evaluation levels. The program outcomes for all undergraduate (UG) and postgraduate (PG) programs are defined based on the general attributes following the guidelines of the Washington Accord. Each program has its own set of well-defined learning outcomes, including,

- Program Educational Outcomes (PEOs)
- Program Outcomes (POs)

- Program Specific Outcomes (PSOs)
- Course Outcomes (COs)

The COs are structured according to Bloom's Taxonomy, and syllabi for each course are designed based on them. The defined COs are mapped to their corresponding POs with three levels of correlation in the program articulation matrix. The Program's Educational Outcomes are defined to ensure attainment within a few years after graduation.

The Program Advisory Committee recommends that the POs, PSOs, and COs be submitted to the Board of Studies for approval. Once the Academic Council approves, the Program Educational Objectives (PEOs), POs, PSOs, and COs are disseminated and made available on the GCE Salem website.

The articulation matrices of all courses fulfill the requirements of every program's graduate attributes, verifying individual students' cognitive, affective, and psychomotor learning levels of the entire class. This schematic model is rigorously followed in framing the curricula, program outcomes, course outcomes, and syllabi.

Attainment of Course Outcomes

The CO attainment levels are calculated for Continuous Internal Assessment (CIA), Course Exit Survey obtained after the completion of the course, and End Semester Examinations (ESE). The attainment level is set with three levels: low, medium, and high for every course offered based on the percentage of students attaining the set targets. The overall CO attainment for every course is calculated, and any gaps in attainment are taken up for further analysis. Contributing factors are addressed through action-taken reports, and further suggestions for continuous improvement are provided.

Attainment of Program Outcomes and Program Specific Outcomes

Each course's PO and PSO attainment levels are then calculated using the overall CO attainment levels and the weighted average obtained in the program articulation matrix. The PO and PSOs for all courses of each program are averaged, and 80% of this attainment is considered as direct attainment of PO and PSO. The values obtained using the program exit, alums, and employer surveys are considered for calculating indirect attainment of PO and PSO with a weightage of 20%.

The combined values of direct and indirect attainment of POs and PSOs are compared with the batch's target value based on the department's criteria for the respective program. The PO/CO attainment gaps are identified and used further to improve the teaching-learning process for each program/course.

All stakeholders' feedback is obtained through different modes and analyzed for improvement. Class Committees Department-level committees are constituted at different levels and stages to assess and monitor progress and improvement. The Internal Quality Assurance Cell (IQAC) is a dedicated team that continually monitors the OBE activities and provides suggestions for improvement.

File Description	Document
Upload POs and COs for all courses (exemplars from Glossary)	View Document
Upload any additional information	View Document

2.6.2

Pass percentage of students (excluding backlog students) (Data for the latest completed academic year)

Response: 97.92

2.6.2.1 **Total number of final year students who passed the examination conducted by Institution during the latest completed academic year:**

Response: 518

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Certified report from the COE indicating the pass percentage of students of the final year (final semester) eligible for the degree program-wise / year wise	View Document
Annual report of Controller of Examinations (COE) highlighting the pass percentage of final year students	View Document

2.7 Student Satisfaction Survey

2.7.1

Online student satisfaction survey regarding teaching learning process

Response: 3.86

Criterion 3 - Research, Innovations and Extension

3.1 Promotion of Research and Facilities

3.1.1

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

Response:

The Government College of Engineering in Salem is recognized as an institute for conducting research under Anna University. Most faculty members enroll for Ph.D. programs under the guidance of supervisors approved by Anna University and follow the Anna University Centre for Research regulations.

Our institution has a robust Research and Development (R&D) Cell that promotes a culture of research and development activities. The R&D Cell is highly efficient and conducts regular meetings to ensure that the needs of all researchers are addressed. The Research Advisory Committee was formed, and the first meeting was held on "10.10.2018" to formulate a Research Policy.

The second meeting of the Research Advisory Committee was held on "05.01.2022" after the COVID era. This meeting marked a significant shift as the committee was renamed the Research and Ethics Committee, reflecting our institution's commitment to ethical research practices. Additionally, the research policy was updated, and a student research council was introduced, further enhancing the research ecosystem at our institution. The third meeting was held on "22.12.2022" and discussed other research-related activities.

The R&D Cell comprises the Research and Ethics Committee, the Students Research Council, and the Intellectual Property Rights, Single Point of Contact. It meets every year to discuss the progress in completing the Ph.D. degrees. The primary focus is to ensure that every faculty member in the Institute becomes a Ph.D. holder.

The table below showcases the remarkable achievements of our faculty members who have completed their Ph.D. degrees from 2018 to 2023, demonstrating their dedication and the supportive environment at our institution.

S.No.	Year	No. of faculties Completed Ph.D.
1.	2018	2
2.	2019	4
3.	2020	1
4.	2021	7
5.	2022	5
6.	2023	7

The committee closely monitors the research needs of the institute and has formed a student research council that focuses on research activities among undergraduate and postgraduate students. It encourages students to take up projects related to real-time challenges and motivates them to find optimal solutions. Moreover, the committee has appointed an IPR SPOC to educate various stakeholders about IPR and

assist them in obtaining patents. With each passing academic year, the Research and Ethics Committee has taken small yet steady steps to contribute significantly to the research community.

File Description	Document
Upload any additional information	View Document

3.1.2

The institution provides seed money to its teachers for research

Response: 22.44

3.1.2.1 **Amount of seed money provided by institution to its teachers for research year wise during last five years (INR in lakhs)**

2022-23	2021-22	2020-21	2019-20	2018-19
0	0	1.04	15.08	6.32

File Description	Document
Sanction letters of seed money to the teachers is mandatory	View Document
List of faculty who have been provided with seed money for research along with the title of the project, duration and amount year-wise	View Document
Institutional data in the prescribed format (data template)	View Document
Audited Income-Expenditure statement highlighting the expenditure towards seed money endorsed by the Finance Officer	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.1.3

Percentage of teachers receiving national/ international fellowship/financial support by various agencies for advanced studies/ research during the last five years

Response: 16.96

3.1.3.1 **Number of teachers who received national/international fellowship /financial support by various agencies, for advanced studies / research; year-wise during the last five years**

Response: 19

File Description	Document
List of teachers who have received the awards along with nature of award, the awarding agency etc.	View Document
Institutional data in the prescribed format (data template)	View Document
E-copies of the award letters of the teachers	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.2 Resource Mobilization for Research

3.2.1

Total Grants research funding received by the institution and its faculties through Government and non-government sources such as industry, corporate houses, international bodies for research project, endowment research chairs during the last five years (INR in Lakhs)

Response: 139.82

File Description	Document
List of Extramural funding received for research, Endowment Research Chairs received during the last five years along with the nature of award, the awarding agency and the amount	View Document
Institutional data in the prescribed format (data template is merged with 3.2.2)	View Document
Copies of the letters of award for research, endowments, Chairs sponsored by non-government sources	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.2.2

Number of research projects per teacher funded by government, non-government , industry, corporate houses, international bodies during the last five years

Response: 0.79

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

Response: 89

File Description	Document
List of project titles with details of Principal Investigator, amount sanctioned and sanctioning agency etc	View Document
Institutional data in the prescribed format (data template merged with 3.2.1)	View Document
Copies of the grant award letters for research projects sponsored by government agencies	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.2.3

Percentage of teachers recognised as research guides as in the latest completed academic year

Response: 29

3.2.3.1 **Number of teachers recognised as research guides as in the latest completed academic year:**

Response: 29

File Description	Document
Upload copies of the letter of the university recognizing faculty as research guides	View Document
Institutional data in the prescribed format (data template merged with 2.4.2 and 3.4.2)	View Document

3.3 Innovation Ecosystem

3.3.1

Institution has created an ecosystem for innovations, Indian Knowledge System (IKS),including awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of knowledge/technology and the outcomes of the same are evident

Response:

Ecosystem for Innovation:

The Government College of Engineering (GCE) Salem established the Institution Innovation Council (IIC) under the leadership of its principal, who also serves as its President/Permanent member.

The IIC has organized several events to promote innovation and entrepreneurship, such as

- "**Innovation Voucher Programme,**" on August 26, 2019, at Seminar Hall, Digital Library, GCE Salem
- "**Entrepreneurship and Innovation as Career Opportunity,**" on November 30th, 2020, via g-meet.
- "**My Story by Successful Innovator/Startup Founder**" on 24 December 2020.
- "**Design Thinking Creative Thinking Innovation Design,**" on 19th February 2021 via g-meet.
- "**Intellectual Property Rights and IP Management for Startups**" on 16th March 2021 via g-meet.

These events have led to the creation of several innovative projects and startups, showcasing the success of our initiatives.

Awareness on IPR

The college promoted several workshops and events to raise intellectual property rights (IPR) awareness.

- A faculty member was identified and motivated to take the "Patent Search and Drafting" course at Anna University from June 25-29, 2018.On June 30, 2018, the college organised a workshop on "Intellectual Property Rights and Innovation."
- On July 8, 2022, the college held an IPR awareness program to educate students and faculty about the importance of IPR for creating new inventions and business startups. The program covered topics such as patents, trademarks, copyrights, and legal matters, providing participants with a deeper understanding of IPR.
- From August 1-5, 2022, Innovate_TN organized a "Capacity Building Program" with an IPR session on August 4. Since then, the faculty has pursued research and innovation, significantly contributing to technology and intellectual property.

As a result of the IPR awareness program, faculty members have obtained several patents.

S. No.	Name of the Faculty Member	Patents title	Year
1.	Dr.D.Shoba Rajkumar	Enforcement structural panels and method of making them.	2021
2.	Dr.D.Ashokaraju	A system and method for thermal management in automotive seats using solar energy.	2021
3.	Dr.T.R.Sumithra	A system for energy management through software defined network	2021

		function veritualization architectures.	
4.	Dr.T.R.Sumithra	An IoT Fan Along with Speed Control Mechanism	2021
5.	Dr.D.Ashokaraju	Detachable solar heater	2022
6.	Dr.D.Ashokaraju	Methods of executing multiple functions by more than one camera connected with electronics device	2022
7.	Prof.R.Sharmil Suganya	Fluorometer	2023
8.	Prof.R.Sharmil Suganya	Distillation Apparatus	2023
9.	Dr.T.R.Sumithra	Design of a smart electric pen to convert speech to written document	2023

Startup Initiative Innovate_TN:

The college has launched the Innovate_TN initiative, a Tamil Nadu government initiative that offers courses like Ideation Sprints, Design Sprints, Engineering Sprints, and Innovation Sprints to promote experiential and industrial learning. This initiative provides students with hands-on experience in innovation and technology, preparing them for the industry. It also includes a Fab-Lab facility that provides technical mentoring and exposure to cutting-edge technologies to students. Finally, the college has introduced PROTSEM courses, organized with FORGE, Coimbatore, that are now available for all departments in the sixth semester and train students with personalized experiences in innovation and technology.

File Description	Document
Upload any additional information	View Document

3.4 Research Publications and Awards

3.4.1

The Institution ensures implementation of its stated Code of Ethics for research.

The institution has a stated Code of Ethics for research and the implementation of which is ensured through the following:

1. **Inclusion of research ethics in the research methodology course work**
2. **Presence of institutional Ethics committee (Animal, Chemical, Bio-ethics etc.)**
3. **Plagiarism check through software**
4. **Research Advisory Committee**

Response: A. All of the above

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Copy of the syllabus of the research methodology course work to indicate if research ethics is included	View Document
Constitution of the ethics committee and its proceedings as approved by the appropriate body	View Document
Constitution of research advisory committee and its proceedings as approved by the appropriate body.	View Document
Bills of purchase of licensed plagiarism check software in the name of the HEI	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.4.2

Number of candidates registered for Ph.D per teacher during the last five years

Response: 4.59

3.4.2.1 **Number of candidates registered for Ph.D during the last 5 years:**

Response: 133

File Description	Document
Ph.D. registration letters/Joining reports of candidates.	View Document
Letter from the university indicating name of the Ph.D. student with title of the doctoral study and the name of the guide.	View Document
Institutional data in the prescribed format (data template merged with 2.4.2 and 3.2.3)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.4.3

Number of research papers published per teacher in the Journals as notified on UGC CARE

list during the last five years

Response: 5.13

3.4.3.1 **Number of research papers in the Journals notified on UGC CARE list year wise during the last five years**

Response: 575

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Links to the paper published in journals listed in UGC CARE list	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document
Link to the uploaded papers, the first page/full paper (with author and affiliation details) on the institutional website	View Document

3.4.4

Number of books and chapters in edited volumes published per teacher during the last five years

Response: 0.16

3.4.4.1 **Total Number of books and chapters in edited volumes published during the last five years**

Response: 18

File Description	Document
List of chapter/book along with the links redirecting to the source website	View Document
Institutional data in the prescribed format (data template)	View Document
Copy of the Cover page, content page and first page of the publication indicating ISBN number and year of publication for books/chapters	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.4.5

Bibliometrics of the publications during the last five years based on average Citation index in Scopus/ Web of Science

Response: 5.85

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

3.4.6

Bibliometrics of the publications during the last five years based on Scopus/ Web of Science – h-index of the Institution

Response: 18.5

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

3.5 Consultancy

3.5.1

Revenue generated from consultancy and corporate training during the last five years

Response: 516.47

3.5.1.1 **Total Amount generated from consultancy and corporate training year wise during last five years (INR in lakhs)**

2022-23	2021-22	2020-21	2019-20	2018-19
89.91	103.43	132.91	99.84	90.38

File Description	Document
Letter from the corporate to whom training was imparted along with the fee paid.	View Document
Letter from the beneficiary of the consultancy along with details of the consultancy fee	View Document
Institutional data in the prescribed format (data template)	View Document
Audited statements of accounts indicating the revenue generated through corporate training/consultancy.	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.6 Extension Activities

3.6.1

Outcomes of extension activities in the neighbourhood community in terms of impact and sensitizing the students to social issues and holistic development, and awards received if any during the last five years (Showcase at least four case studies to the peer team)

Describe the impact of extension activities in sensitising students to social issues and holistic development with four case studies within a maximum of 500 words

Response:

Introduction:

Student clubs and organizations are crucial in shaping a well-rounded educational experience at the Government College of Engineering (GCE) in Salem. These clubs focus on community service, environmental sustainability, and personal growth. This report will provide an overview of the various activities, initiatives, and contributions of GCE and Salem students who participate in these clubs.

Leo (Etrics) Club:

- In the academic year 2018-19, the Leo (Etrics) Club demonstrated an unwavering commitment to social responsibility and community welfare.
- **Student's Camp:** As a learning platform, the Student's Camp brought together 100 participants who shared experiences and built camaraderie.
- **Gaja Cyclone Relief:** Actively participated in relief efforts during the Gaja Cyclone, demonstrating commitment to community welfare during crises.
- **Visits to Thai Anbu Illam and Nesakarangal:** Undertook initiatives emphasizing intergenerational understanding and compassion.
- **Yercaud Service Camp and Childcare Awareness:** Emphasized dedication to community

service, innovation, and leadership development.

National Cadet Corps (NCC 5 TN AIR SQN - TECH):

Tree Plantation Events: Symbolized commitment to sustainable living and national ideals on Independence Day and Republic Day.

Awareness Campaigns: "Lifestyle of Environment" and Anti-Tobacco Day campaigns demonstrated dedication to eco-friendly practices and public health.

Blood Donation Drive: Conducted on 06.08.2019, showcasing a commitment to community well-being.

Intensive Training Camp: Reflected on the NCC unit's multifaceted personal and community development contribution.

National Service Scheme (NSS):

- **Community Service and Environmental Awareness:** NSS units spearheaded campus cleaning activities, pandemic awareness, and plastic-free world campaigns.
- **Patriotic Initiatives:**
    - Celebrating Dr. A.P.J Abdul Kalam's birth anniversary.
    - Independence Day.
    - Blood donation camps reflected patriotic enthusiasm and dedication to social causes.

Rotary Club:

- Transformative Events:
    - Zenith 19.0
    - Dazzlers 20.0
    - Zenith 22.0

Environmental Club and Green Campus:

- **Plastic Impact Awareness:** Conducted events such as "Impacts of Plastics on Earth" and the "Swachhata Hi Seva" campaign during the 2019-2020 academic year.

Social Service Activities:

- Two days of social service work at Anganwadi School in Dalmiapuram, Salem, cleaning their place and making white and color wash works.
- One Student and One Tree.
- Two days of social service work (Cleaning their campus, white and color washing works) at Government Elementary School, Karuppur, Salem.
- One Day Awareness program on single-use plastics
- Tree plantation program

Standards Club:

The Standards Club of GCE Salem organized a series of events to help participants better understand the principles related to quality and standards. These events included

- The Inauguration & Quiz Competition based on the principles of quality and standards)
- An industrial visit to M/s JSW Steel Plant to expose participants to real-world industrial practices regarding standards and quality
- World Standards Day
- World Consumer Rights Day
- Standards Writing Competition
- Youth to Youth Awareness Program.

Youth Red Cross (YRC) Club:

Youth Red Cross (YRC) Club organized a three-day blood donation camp showcasing their commitment to altruism and community spirit.

Mechanical greenery and cleanliness association:

The Mechanical Greenery and Cleanliness Association conducted an initiative focused on planting and cleanliness during the 2021-22 academic year.

File Description	Document
Upload any additional information	View Document

3.6.2

Number of extension and outreach programs conducted by the institution through organized forums including NSS/NCC with involvement of community year wise during the last five years

Response: 96

3.6.2.1 **Number of extension and outreach programs conducted by the institution through organized forums including NSS/NCC with involvement of community year wise during the last five years.**

2022-23	2021-22	2020-21	2019-20	2018-19
44	16	06	22	8

File Description	Document
Photographs and any other supporting document of relevance should have proper captions and dates.	View Document
Institutional data in the prescribed format (data template)	View Document
Detailed report for each extension and outreach program to be made available, with specific mention of number of students participated and the details of the collaborating agency	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.7 Collaboration

3.7.1

Number of functional MoUs/linkages with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the last five years

Response: 35

File Description	Document
Summary of the functional MoUs/linkage/collaboration indicating start date, end date, nature of collaboration etc	View Document
List of year wise activities and exchange should be provided	View Document
List and Copies of documents indicating the functional MoUs/linkage/collaborations activity-wise and year-wise	View Document
Institutional data in the prescribed format (data template)	View Document

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1

The Institution has adequate infrastructure and other facilities for

1. **teaching – learning, viz., classrooms, laboratories, computing equipment etc**
2. **ICT – enabled facilities such as smart class, LMS etc.**
3. **Facilities for Cultural and sports activities, yoga centre, games (indoor and outdoor), Gymnasium, auditorium etc.**

Response:

The institution provides various facilities to enhance the teaching-learning experience of the students as well as their cultural and sports activities.

Teaching-Learning Facilities: The institution has 46 classrooms, 62 laboratories,07 seminar halls, 05 conferencing halls, and 02 drawing halls. During the assessment period 2021, the classroom complex (First year) was constructed, demonstrating our ongoing commitment to enhancing the learning environment. Around 89% of the classrooms are equipped with ICT enabled tools with Wi-Fi facilities. The institution has invested a substantial amount of Rs.1196.57 Lakhs on infrastructure augmentation, Rs.43.19 Lakhs on learning resources, and Rs.621.04 Lakhs on maintenance of physical and academic facilities in the last five years, ensuring a secure and conducive learning environment. The institution has set up an Innovate TN lab with an amount of Rs.100 Lakhs in collaboration with Tamil Nadu Startup Innovation Mission. The infrastructure setup has been partially completed with the release of an initial amount of Rs.50 Lakhs.

Computer laboratories:

The institution has 518 computers with a 3.74:1 student-computer ratio to cater to teaching-learning. The internet bandwidth is 1 Gbps within the campus and available 24*7 to all the faculties and students. The maximum support of internet points connected by LAN/WAN: 700

(b) ICT-Enabled Facilities: We proudly announce that each department has smart classrooms with interactive smart boards/LCD projectors enabled with Wi-Fi facilities. This technological advancement is not limited to a few classrooms; 89% of all classrooms are equipped with ICT-enabled tools and Wi-Fi facilities, ensuring that our students can access the latest learning resources and technologies.

(c) Cultural and Sports Facilities: The institution takes pride in its Padmashree Muthaiyan Auditorium, which has a capacity of 750 for cultural activities and provides a platform for our students to showcase their talents. Additionally, we have a sprawling playground with approximately 50 acres, offering ample space for various sports activities. The playground features a 400m track and field, inviting students to engage in a healthy and active lifestyle.

Details of the outdoor games:

S. No.	Name of the game/ Sports	Number of courts/ Field
1.	Athletics	1
2.	Basketball	1
3.	Ball badminton	2
4.	Hockey	1
5.	Foot ball	1
6.	Cricket	1
7.	Tennis	1
8.	Table tennis	1
9.	Shuttle (outdoor)	4
10.	Volleyball	3
11.	Kabaadi	2
12.	Handball	1
13.	Gymnasium (open) Parallel bar, Roman ring, Horizontal bar, and Rope climbing	1 each
14.	Gym (Men)	1
15.	Gym (women)	1

Indoors facilities:

1. Gymnasium
2. Carom board
3. Table tennis
4. Ball Badminton

Indoor Stadium facilities:

Approval has been granted for constructing an indoor stadium at an estimated cost of Rs.80 lakh, and construction work is underway. The facility will include

Ball badminton (6.10m x 13.40m) – 4 nos

Basketball court (28.65m x 15.24m) – 1 nos

A Gym area

Separate zones for Table tennis, Carrom, Chess, and other indoor games, a Storeroom, and a coach room

Additionally, there will be a gallery on the first floor with a seating capacity of 250.

File Description	Document
Upload any additional information	View Document

4.1.2

Percentage of expenditure excluding salary, for infrastructure development and augmentation year wise during the last five years

Response: 64.3

4.1.2.1 **Expenditure for infrastructure development and augmentation, excluding salary year wise during last five years (INR in lakhs)**

2022-23	2021-22	2020-21	2019-20	2018-19
659	3.37	61.16	349.13	123.91

File Description	Document
Institutional data in the prescribed format (data template is merged with 4.2.2 and 4.4.1)	View Document
Audited income and expenditure statement of the institution to be signed by CA and counter signed by the competent authority (relevant expenditure claimed for infrastructure augmentation should be clearly highlighted)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

4.2 Library as a Learning Resource

4.2.1

Library is automated with digital facilities using Integrated Library Management System (ILMS),

adequate subscriptions to e-resources and journals are made. The library is optimally used by the faculty and students

Response:

The Government College of Engineering Salem has a beautiful library spanning 789.40 square meters. The library houses an extensive collection of 30,120 titles and can accommodate up to 80 people. It also has a digital library spanning 942.28 square meters, with a seating capacity of 160 people in the videoconferencing hall.

The principal has initiated to explore the possibility of creating e-learning content. For which, faculty members are encouraged to submit their proposal, which then reviewed and finalized by COE and made available to students in institutional LMS.

Undergraduate and Master's theses have been digitized, along with conference proceedings, to facilitate research with ease. The aim is to provide students with easy access to relevant and up-to-date information and improve their research capabilities.

The college is affiliated with Anna University and is an approved research center. It gives access to Shodhganga, a repository of theses by the INFLIBNET Centre, where faculty, research scholars, and students can access Ph.D. theses submitted by research scholars around the nation. Additionally, the digital library provides facilities to access e-journals, books, and NPTEL video lectures. A dedicated library building has been constructed with WiFi facilities made available 24*7.

The institution's digital library also has access to Swayam Prabha, a DTH channel that telecasts educational programs via the GSAT-15 satellite. The institution is also integrated with IRINS (Indian Research Information Network System), which supports getting institutions citation databases such as h-index and publications from academic identities like Web of Science ID, Scopus ID, and Research Scholar ID.

The Institute library utilizes the Koha Library Management Software, an open-source Integrated Library System (ILS) that is instrumental in managing libraries of various sizes. This software offers comprehensive tools such as Cataloguing, Circulation Acquisitions, Serials Management, and Patron Management. These tools enable libraries to manage their resources, including books, journals, and digital documents, more efficiently, providing an enhanced experience for Staff and patrons.

The following e-resources, carefully selected to support your academic and research needs, have been purchased/subscribed and are now accessible to Staff and students via the Government College of Engineering Salem IP address: 14.139.189.1 only.

List of e-resources purchased/subscribed:

S.No	Name of the E-Resource	Number of Files
1	American Society of Mechanical Engineers (ASME)	26 plus back files to year 2000
2	American Society of Civil Engineers (ASCE)	34 plus back files to year 2000
3	Wiley books	72 Titles

4	Pearson Education Books	490 Titles
5	Institution of Engineering and Technology (IET) e-books	408 Titles

File Description	Document
Upload any additional information	View Document

4.2.2

Percentage of expenditure for purchase of books/ e-books and subscription to journals/e-journals year wise during the last five years

Response: 2.32

4.2.2.1 **Expenditure for purchase of books / e-books and subscription to journals/e-journals year wise during last five years (INR in lakhs)**

2022-23	2021-22	2020-21	2019-20	2018-19
11.23	8.86	5.64	13.56	3.91

File Description	Document
Institutional data in the prescribed format (data template merged with 4.1.2 and 4.4.1)	View Document
Audited income and expenditure statement of the institution to be signed by CA and counter signed by the competent authority (relevant expenditure claimed for purchase of books/ e-books and subscription to journals/e-journals should be clearly highlighted)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

4.3 IT Infrastructure

4.3.1

Institution frequently updates its IT facilities and provides sufficient bandwidth for internet connection

Describe IT facilities including Wi-Fi with date and nature of updation, available internet bandwidth within a maximum of 500 words

Response:

In recognition of the pivotal role played by IT infrastructure in facilitating an effective teaching and learning environment, our institution Government College of Engineering Salem, has consistently prioritized the enhancement of our technology facilities. With a strong commitment to provide seamless access to digital resources across our campus, for both students and faculty members, we have undertaken several significant initiatives over the years.

The following are the details of updation of internet bandwidth:

- Campus Wide Area Networking project with Optical Fiber Cable (OFC) connectivity.
- National Knowledge Network (NKN) - 100 Mbps with 15 VPN connections @ access speed of 2Mbps.
- Bandwidth increased to 1 Gigabit per second (Gbps) with 48 access points, each with a minimum speed of 10 Mbps per user.
- Network security by acquiring a Firewall – Core switches.
- 10 switches to strengthen our college-wide networking capabilities.
- 8 switches specifically dedicated to enhancing connectivity within our Digital Library.
- Voice over Internet Protocol (VoIP) phones for intra-college communication replacing analog phones.
- Implementation of Electronic Automatic Private Branch Exchange (PABX) streamlined communication among faculty and staff members (As part of this initiative, the entire campus underwent a rewiring process with a digital link, further enhancing the efficiency and reliability of our network infrastructure).

File Description	Document
Upload any additional information	View Document

4.3.2

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

Response: 3.74

4.3.2.1 **Number of computers available for students' usage during the latest completed academic year:**

Response: 518

File Description	Document
Purchased Bills/Copies highlighting the number of computers purchased	View Document
Extracts stock register/ highlighting the computers issued to respective departments for student's usage.	View Document

4.3.3

Institution has dedicated audio visual centre, mixing equipment, editing facility, media studio, lecture capturing system(LCS) and related hardware and software for e-content development

Response:

The institution has wisely invested in Lecture-Capturing Systems (LCS) and Audacity, both cost-effective tools for developing e-content. These systems can efficiently capture and store lectures, providing students with convenient access to course material, thereby enhancing their learning experience. Audacity, a freely available and open-source program, is another valuable tool for e-content development. It allows educators to easily edit audio files, creating high-quality and engaging content without incurring additional costs.

The Interactive LCD panel, a versatile component of our Lecture-Capturing Systems, serves multiple purposes in the learning process. It can be used for recording audio, capturing videos, and storing video content, ensuring a fully integrated learning approach. The panel's touch-sensitive surface allows easy navigation and annotation, enhancing the interactive learning experience. By using screen recording and audio, it is possible to record lectures. The microphone is integrated with the panel, making the process even easier. The content can be saved in various formats, such as JPEG or PDF, further enhancing its versatility.

Audacity, a widely used and popular program, is a valuable asset for editing e-content. As a freely available and open-source program, it offers a user-friendly interface and a wide range of editing tools, such as noise reduction, equalization, and compression. This makes it a preferred choice for educators, as it is easy to use and enhances the quality of their audio content.

The institution has purchased two Interactive Display Systems for about Rs. 3,84,000 and ten Interactive Pen Displays for about Rs.6,00,000. These purchases are intended to support the development of e-content.

The principal has established a dedicated team to explore the possibility of creating e-learning content. Faculty members are encouraged to submit their proposals for e-content, which are then reviewed and shortlisted by the COE. The selected proposals are used to develop e-content that can benefit the students. Regular feedback is collected from students to improve the teaching and learning process.

E-content has been developed for the following courses:

- Transmission lines and RF systems

- Underwater Communication

- 4G/5G Communication Networks

- Analog Communication

- Control Systems

- Signals and Systems

- Validation and Testing Technology

- Rocketry and Space Mechanics

File Description	Document
Upload any additional information	View Document

4.4 Maintenance of Campus Infrastructure

4.4.1

Percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, during the last five years

Response: 33.37

4.4.1.1 ***Expenditure incurred on maintenance of physical facilities and academic support facilities of DDE and total expenditure excluding salary, year - wise, over the last five years (INR in lakhs)***

2022-23	2021-22	2020-21	2019-20	2018-19
100.52	71.85	149.85	234.23	64.59

File Description	Document
Institutional data in the prescribed format (data template merged with 4.1.2 and 4.2.2)	View Document
Audited income and expenditure statement of the institution to be signed by CA and counter signed by the competent authority (relevant expenditure claimed for maintenance of physical facilities and academic support facilities should be clearly highlighted)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

4.4.2

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

Describe policy details of systems and procedures for maintaining and utilizing physical, academic and support facilities within a maximum of 500 words

Response:

The institution's academic facilities and physical infrastructure are managed and maintained by various departments and technical staff under the guidance of the respective heads of departments and faculty members. The Department of Electronics and Communication Engineering maintains the network connectivity facilities. At the same time, the Librarian and Faculty in charge of the library are responsible for maintaining the library facilities. The Physical Director takes care of the sports complex under the guidance of the Vice Principal.

Procedure for the purchase of equipment/computers/consumables:

To purchase equipment, computers, and consumables, the respective heads of departments must submit proposals to the Board of Governors (BOG) for approval. One of the faculty members in the Assistant Professor of the user department initiated this and forwarded it to the head of the department. The purchase committee will review and recommend the proposals, and the process will follow the Tamil Nadu Transparency Tender Act 1998.

Procedures for maintaining physical and academic support facilities:

The Public Works Department (PWD) manages the maintenance of the complete infrastructure facilities. Suppose the respective heads of departments need repair or maintenance of physical support facilities. In that case, they must submit a requisition letter to the principal, who will forward it to the PWD (Civil/Electrical) department. PWD handles repair works based on the requests for day-to-day repair works. The Tamil Nadu Public Works Department (PWD) carries out the planning, construction, and maintenance of classrooms, laboratories, library buildings, and other infrastructures based on the

proposals submitted by the Building and Works committee. The committee is headed by a Professor from the Civil Engineering Department, and other members are the Liaison officer/Estate officer, assistant engineer (Civil/EEE), etc. The Tamil Nadu Rules & Regulations are being followed for mini and major work. The Directorate of Tamil Nadu allocates the budget for maintenance works every year, and the principal prioritizes the work to be carried out that year.

The work is carried out in the following manner based on the cost involved:

- Up to 2 lakhs: The Assistant Engineer (AE) - Civil/Electrical based on user departments prepares the estimation. The Assistant Executive Engineer (AEE) is responsible for tender calling and agreement. The Executive Engineer (EE) is the sanctioned authority.

- 2 lakhs to 50 lakhs: The AE (Civil/Electrical) based on user departments prepares the estimation. The AE is responsible for tender calling and agreement and is the sanctioned authority.

- Above 50 Lakhs: The AE (Civil/Electrical) based on user departments prepares the estimation. The Chief Engineer (CE) is responsible for tender calling and agreement and is the sanctioned authority.

Utilizing physical and academic support facilities:

To utilize the laboratories, classrooms, seminar halls, sports complex, equipment, computers, and other ICT tools of the Institute, students and faculty members must submit a requisition letter through the proper channel to the Head of the Department of the facility requested. The Head of the Institution will provide permission by considering the internal utilization of the facilities.

File Description	Document
Upload any additional information	View Document

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1

Percentage of students benefited by scholarships and freeships provided by the institution, government and non-government bodies, industries, individuals, philanthropists during the last five years

Response: 84.11

5.1.1.1 **Number of students benefited by scholarships and freeships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists year wise during last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
1626	1588	1564	1716	1800

File Description	Document
Year-wise list of beneficiary students in each scheme duly signed by the competent authority.	View Document
Upload Sanction letter of scholarship and free ships (along with English translated version if it is in regional language).	View Document
Upload policy document of the HEI for award of scholarship and freeships.	View Document
Institutional data in the prescribed format (data template)	View Document

5.1.2

Efforts taken by the institution to provide career counselling including e-counselling and guidance for competitive examinations during the last five years

Response:

The Government College of Engineering in Salem stands out for its unique approach to supporting students in enhancing their academic excellence and employability. The institution's career counseling and guidance are standard services and personalized journeys tailored to each student's needs. At the start of every academic year, an induction program is conducted, serving as a compass to guide students on their unique paths. Moreover, the college has forged partnerships with numerous organizations to offer

specialized programs that equip students for competitive exams.

T.I.M.E (Triumphant Institute of Management Education)

In 2019, the college joined forces with T.I.M.E. (Triumphant Institute of Management Education) to host an Employment Skill Development Training program. This initiative was a resounding success, equipping 270 participants with essential skills that proved instrumental in securing competitive job opportunities.

Gate forum

The partnership with Gate Forum was equally fruitful, providing comprehensive training for 147 participants preparing for the Graduate Aptitude Test in Engineering (GATE). This program, spanning diverse subjects, ensured a thorough understanding of the exam's syllabus and significantly enhanced the participants' problem-solving skills.

CAT, GMAT & GRE

In 2022, the collaboration with T.I.M.E. Institute introduced an Intensive Coaching Class focusing on C.A.T., GMAT, and GRE, providing specialized coaching for 25 participants and enhancing their prospects for admission to prestigious management and graduate programs.

IELTS, TOEFL

Additionally, the partnership extended to include an Intensive Coaching Class for IELTS and TOEFL, targeting students to enhance their proficiency in English language skills for academic and professional purposes. This will help the students get admission to higher studies around the globe.

Carrer Guidance Programmes

The institution has also conducted several career guidance programs, including a one-week webinar on "Best Way of Designing a Career for Civil Engineering" and a one-day student workshop on "Career guidance in E.C.E." The institution also conducted a one-day webinar on "Tell Me About Yourself" and "Tell Me About Yourself- Part 2" under Placement & Training activities.

The institution's collaborations are symbolic gestures and tangible manifestations of its commitment to providing diverse learning opportunities. These partnerships have bridged the gap between academic knowledge and real-world applications and paved the way for student's academic and professional success. The impact of these collaborations is evident in the holistic development of participants, who are now equipped with skills and knowledge crucial for their future endeavors.

Induction program

Academic Year	Duration of the Program	Students’ participant count

2018-2019	20.8.2018 - 09.09.2018	**439**
2019-2020	01.08.2019 - 24.08.2019	**429**
2020-2021	11.11.2020 – 25.11.2020	**384**
2021-2022	14.11.2022 - 04.12.2022	**409**

File Description	Document
Upload any additional information	View Document

5.1.3

Following capacity development and skills enhancement activities are organised for improving students' capability

1. **Soft skills**
2. **Language and communication skills**
3. **Life skills (Yoga, physical fitness, health and hygiene, self-employment and entrepreneurial skills)**
4. **Awareness of trends in technology**

Response: A. All of the above

File Description	Document
Report with photographs on programmes conducted for awareness of trends in technology	View Document
Report with photographs on programmes/activities conducted to enhance soft skills, Language & communication skills, and Life skills (Yoga, physical fitness, health and hygiene, self-employment and entrepreneurial skills)	View Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.1.4

The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases

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

Response: A. All of the above

File Description	Document
Proof w.r.t Organisation wide awareness and undertakings on policies with zero tolerance	View Document
Proof related to Mechanisms for submission of online/offline students' grievances	View Document
Proof for Implementation of guidelines of statutory/regulatory bodies	View Document
Details of statutory/regulatory Committees (to be notified in institutional website also)	View Document
Annual report of the committee monitoring the activities and number of grievances	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.2 Student Progression

5.2.1

Percentage of placement of outgoing students and students progressing to higher education during the last five years

Response: 44.69

5.2.1.1 **Number of outgoing students placed and progressed to higher education during the last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
306	234	162	264	246

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.2.2

Percentage of students qualifying in state/ national/ international level examinations out of the graduated students during the last five years

(eg: NET/SLET/ Civil Services/State government examinations etc.)

Response: 1.7

5.2.2.1 **Number of students qualifying in state/ national/ international level examinations (eg: NET/SLET/Civil Services/State government examinations etc.) year wise during last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
13	2	4	14	13

File Description	Document
List of students qualified year wise with details of examination and links to Qualifying Certificates of the students taking the examination	View Document
Institutional data in the prescribed format (data template)	View Document

5.3 Student Participation and Activities

5.3.1

Number of awards/medals for outstanding performance in sports/cultural activities at University / state /national / international Level events during the last five years

Response: 22

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

2022-23	2021-22	2020-21	2019-20	2018-19
14	5	0	1	2

File Description	Document
list and links to e-copies of award letters and certificates	View Document
Institutional data in the prescribed format (data template)	View Document

5.3.2

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

Describe the Student Council activity and students' role in academic & administrative bodies within a maximum of 500 words

Response:

The Government College of Engineering, Salem has a well-structured administrative framework that caters to the diverse needs of its student body. The system comprises various committees, each playing a crucial role in ensuring the institution's smooth functioning and fostering the holistic development of its students.

Administrative Committees:

The college has several critical administrative committees, including:

Institutional Development, Planning, and Maintenance Committee: This committee oversees the college's growth, infrastructure development, and maintenance. Its primary goal is to ensure the campus is conducive to academic and extracurricular activities.

Students Affairs Committee: This committee is committed to addressing students' welfare and provides a platform for students to voice their academic and non-academic concerns. By acting as a bridge between the students and the administration, the committee ensures that students' voices are heard and their concerns are addressed.

Grievances Redressal Committee: This committee is vital in resolving students' grievances and ensuring their concerns are heard and addressed effectively.

Anti-Gender Harassment Committee/Internal Complaint Committee: This committee is committed to promoting a safe and inclusive campus environment by diligently addressing issues related to gender harassment and discrimination.

In addition to these committees, **the Student Union plays a crucial role in creating a vibrant atmosphere within the college**. The most outgoing student with a commendable academic track record assumes the role of chairman, leading cultural and sports events within the college. This dynamic leadership ensures that extracurricular activities thrive, enhancing the overall college experience for students.

Academic Committees:

The college places great emphasis on academic excellence and the holistic development of students. To achieve this goal, various academic committees have been established:

Library Committee: The Library Committee focuses on enhancing the resources and services offered by the college library and creating a conducive environment for research and learning.

Class Committees: Class Committees are formed for each department and student year. These committees include student and faculty members handling the courses and conducting at least three meetings in a semester. Their agenda encompasses various topics, from addressing students' needs to monitoring class progress and test performance. If students' psychological problems are raised, they are also discussed here.

Departmental Associations: Each department maintains an association comprising student office bearers, including a Student Secretary, Joint Secretary, and other positions. A faculty advisor guides these students.

These academic committees aim to nurture students' individuality, foster their decision-making abilities, develop leadership skills, and enhance their professional communication abilities. Furthermore, these committees instill a sense of teamwork, preparing students for the challenges of the professional world.

The Government College of Engineering has established a comprehensive administrative and academic committee system that addresses students' concerns and actively contributes to their personal and professional development. Through these committees, the college creates a nurturing and enriching environment where students can thrive academically and personally.

File Description	Document
Upload any additional information	View Document

5.3.3

The institution conducts / organizes following activities:

1. **Sports competitions/events**
2. **Cultural competitions/events**
3. **Technical fest/Academic fest**
4. **Any other events through Active clubs and forums**

Response: A. All four of the above

File Description	Document
Report on Sports, Cultural competitions/events, Technical/academic fests, Any other events through active clubs and forums along with photographs appropriately dated and captioned (whichever is applicable)	View Document
List of students participated in different events year wise signed by the head of the Institution	View Document
Institutional data in the prescribed format (data template)	View Document
Copy of circular/brochure indicating such kind of activities.	View Document

5.4 Alumni Engagement

5.4.1

Total Amount of alumni contribution during the last five years (INR in lakhs) to the institution through registered Alumni association:

Response: 59.61

5.4.1.1 **Total Amount of alumni contribution during the last five years (INR in lakhs) to the institution year wise through registered Alumni association:**

2022-23	2021-22	2020-21	2019-20	2018-19
37.56	0	0	18.00	4.05

File Description	Document
Annual audited statements of accounts of the HEI highlighting the Alumni contribution duly certified by the Chartered Accountant/Finance Officer	View Document

5.4.2

Alumni contributes and engages significantly to the development of institution through academic and other support system

Describe the alumni contributions and engagements within a maximum of 500 words

Response:

The Alumni Association of the Government College of Engineering, Salem's involvement in the institution's development is multifaceted, encompassing both financial and non-financial contributions that significantly enhance the educational experience of its students and the overall infrastructure of the college.

Financial contributions

- **Corpus Fund**: Our Institute establishes a corpus fund from donations received, which is used to generate interest.

Academic Year	Contributed by	Amount Contributed in Rs.
2018-19	1973 Batch Endowment fund for scholarship	405000
2019-20	1985-89 Batch Alumni Endowment Fund	300000
2022-23	1972 Batch Endowment fund for scholarship	750000

- **Scholarship to students**: Generated interest from corpus fund is allocated for scholarships to support deserving and financially disadvantaged students.

Academic Year	The amount distributed as a scholarship	Number of students benefited
2018-19	Rs.36000 (6000*6 students)	6
2019-20	Rs.18000 (6000*3 students)	6
2022-23	Rs.24660 (1795*6 students, 4630*3 students)	9

- **Notable financial initiatives include**:
    - An Alumni Centre, costing approximately one crore rupees, was constructed to facilitate campus interviews and important meetings. Alumni donations funded the entire cost of the construction.
    - Additionally, the 1972 batch contributed an amount of Rs.2,00,000 for maintenance activities of the hostel.
    - The 1993 batch alumni jointly funded the construction of an arch at the college's central gate, along with connecting walls and a road. The total cost of this project was 30 lakh rupees, of which the alumni contributed Rs.15,00,000, and the remaining Rs.15,00,000 was funded by the Tamil Nadu Government's Self Sufficiency Scheme.

Academic Contributions

Beyond financial contributions, the alumni's involvement extends to non-financial support, which is

crucial in enhancing current students' academic and professional prospects. It includes:

- **Guest Speakers**: Alumni serve as guest speakers for various programs and contribute to the academic development of students and the institution.
- **Internship Opportunities**: Provides internship opportunities, project work, and job placements through campus interviews, thereby directly contributing to the student's career development.
- **Donating Books**: Donating learning resources to department libraries and mentoring students pursuing higher studies.
    - On 25th April 2022, Mr. Shanmugarajan donated 152 books to the Electronics and Communication Engineering (ECE) department's library.
- Participating in governance and advisory roles within the college, such as serving on the Board of Studies, Academic Council, and Board of Governors.

The Alumni Association values and actively seeks out feedback from alumni, recognizing it as a vital tool for continuous academic development and enhancing student career opportunities. This feedback loop ensures that the college remains attuned to industry trends and the evolving needs of its student body.

Moreover, the Annual Alumni Meet, held on the second Sunday of August each year, is more than just a gathering. It's a platform for networking, sharing experiences, and collaboratively discussing further development initiatives for the college. It is a chance for alumni to reconnect with their alma mater and each other, fostering a sense of community and shared purpose. The details of the alumni meeting are provided below.

Academic Year	**Date of Alumni meet.**
2018-19	11.08.2018
2019-20	11.08.2019
2020-21	Not conducted due to Covid pandemic
2021-22	
2022-23	14.08.2022

File Description	**Document**
Upload any additional information	View Document

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1

The institutional governance and leadership are in accordance with the vision and mission of the Institution and it is visible in various institutional practices such as NEP implementation, sustained institutional growth, decentralization, participation in the institutional governance and in their short term and long term Institutional Perspective Plan.

Response:

Vision

- We envision our students as excellent Engineers not only in the field of Science and Technology, but also in good citizenship and discipline.
- Our commitment lies in producing comprehensive knowledge seekers and humane individuals, capable of building a strong and developed nation.

Mission

- To impart update technical education and knowledge.
- To groom our young students to become professionally and morally sound engineers.
- To reach global standards in academics and value based education.

Decentralized governance in Academic Activities

The institution has several committees, each with specific roles and responsibilities, ensuring representation from faculty, students, alumni, industry experts, subject experts, and employers. Key academic decisions are made by the following bodies:

1. Board of Governors (BOG): This governing body oversees major decisions, ensuring they align with the institution's vision and mission. It meets regularly to develop the strategic plan for achieving these goals, approving short-term (like 3 to 4 years) plans and other recommendations from stakeholders.

2. Academic Council: Responsible for updating technical education reflected in curriculum development, the council approves new regulations and changes to be made in the current regulations for undergraduate and postgraduate programs, as well as end-semester examination modalities and result processing methods.

3. Standing Committee: Meets regularly to decide on academic activities, such as adding or exempting subjects for lateral entry and transfer students.

4. Board of Studies: This board proposes curriculum changes based on stakeholder feedback and recommends these changes to the Academic Council for approval.

Decentralized governance model in Administration

The Principal collaborates with the BOG members and Heads of Departments to facilitate planned activities by providing financial and infrastructure support. Decision-making regarding student-centric programs, activities, and curriculum revision is likely decentralized to the departmental level. This decentralization is achieved by dividing the institution into 10 departments, each headed by a Professor/HoD.

Each department has functional autonomy to implement student-centric programs and activities. HoDs conduct regular faculty meetings to discuss department-level academic and administrative matters. Various committees at the department level, involving faculty, students, industry/subject experts, and alumni, manage academic activities such as organizing industrial visits, seminars, guest lectures, and tech events. The Class Committee, which includes students and faculty, meets thrice a semester for every batch to address academic needs and receive feedback on the teaching-learning process.

The Program Advisory Committee reviews end-semester feedback from students on the curriculum, teaching-learning process, and attainment of course outcomes (CO) and program outcomes (PO), and takes necessary action for improvement. The Controller of Examinations (COE) cell prepares the academic and assessment schedule and manages the overall administration of examinations. The IQAC oversees institutional quality, with other committees established for planning, monitoring, and executing academic activities.

These committees are established to strategize, oversee, and implement diverse academic activities.

- Finance committee
- Building and works committee
- Purchase committee
- Disciplinary committee
- Institutional development committee
- Planning, and monitoring committee
- Student affairs committee
- Grievance redressal committee
- Anti-gender harassment /Internal complaint committee
- Anti ragging committee
- Anti ragging squad
- Women Empowerment Cell
- Library committee

File Description	Document
Upload any additional information	View Document
Provide the link for additional information	View Document

6.2 Strategy Development and Deployment

6.2.1

The institutional perspective plan is effectively deployed and functioning of the institutional bodies are effective and efficient as visible from policies, administrative setup, appointment, service rules, and procedures, etc

Response:

Strategic Plan for 2020-2025:

Strategic Plan is effectively deployed in Government College of Engineering, Salem-11 for 2020-2025.

The various strategic goals towards achieving excellent engineers not only in the field of science and technology, but also in good citizenship and discipline in line with vision and mission of the institution.

- Among Top Five State Technical Institutions
- Multi Dimensional Skill Delivery beyond Class Room Learning
- Major Destination for Industries to Pick Engineers
- Entrepreneurial Culture and Startups
- Infusing Unlimited Soft Skills
- Excellent Synergy with Industries
- Focus on Research Activities
- National Level Achievements in Sports with Modern Indoor Stadium
- Outstanding Alumni Relationship for Institutional development

Administrative setup:

As a government Institution, the Principal of GCE Salem-11 executes all activities encompassing diverse bodies like the BOG , Academic Council Finance Committee. The principal holds discussions with the BOG members and Heads of various Departments in order to facilitate the execution of planned activities by offering financial and infrastructure assistance within the scope of his/her authority.

Upon receiving recommendations from the BOG, the Principal seeks approval from the Commissioner of Technical Education (DOTE). After due approval from the Commissioner of Technical Education, the Principal implements the planned activities within the scope of his/her authority.

Board of Governors (BOG)

The BOG as a governing body, holds authority over major decisions, ensuring alignment with the institution's vision and mission.

It periodically meets to design and develop the strategic plan in achieving the vision and mission of the Institution. The Governing Body may approve the short term (like 3 to 4 years) plans of the Institute and other recommendations from the various stakeholders.

Academic Council

Imparting updated technical education is reflected in the development of curriculum. It approves new regulations and changes to be made in the current regulations for UG/PG programmes and the modalities of end-semester examinations and the methodology of processing the results.

Standing Committee

It meets regularly to make some decisions in regard to academic related activities such as additional subjects to be taken up and subjects to be exempted for lateral entry and transfer students.

Board of Studies

Based on the feedback received from stakeholders, the Board of Studies proposes any changes to refine the curriculum whenever needed and subsequently recommends to the Academic Council.

Decision-making related to student-centric programs and activities as well as curriculum revision is likely decentralized to the departmental level. Decentralization is likely done by dividing the institution into 10 departments headed by **Professor/HOD**. **Each department** is provided with functional autonomy like implementing student-centric programmes and activities at the department level.

The COE cell prepares the academic and assessment schedule and manages the overall administration of examinations.

IQAC monitors and maintains overall quality in the institution.

The following committees are also established to plan, monitor and execute other academic activities.

Internal Quality Assurance Cell

Finance committee

Building and Works Committee

Purchase committee

Disciplinary committee

Institutional development committee

Planning, and monitoring committee

Student affairs committee

Grievance redressal committee

Anti-gender harassment committee

Anti-Ragging Committee

Anti-Ragging Squad

Women Empowerment Cell

Library committee

File Description	Document
Upload any additional information	View Document
Institutional perspective Plan and deployment documents on the website	View Document

6.2.2

Institution implements e-governance in its operations. e-governance is implemented covering the following areas of operations:

1. **Administration including complaint management**
2. **Finance and Accounts**
3. **Student Admission and Support**
4. **Examinations**

Response: A. All of the above

File Description	Document
Screen shots of user interfaces of each module reflecting the name of the HEI	View Document
Institutional expenditure statements for the budget heads of e-governance implementation ERP Document	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

6.3 Faculty Empowerment Strategies

6.3.1

The institution has performance appraisal system, effective welfare measures for teaching and non-teaching staff and avenues for career development/progression

Response:

I. Performance appraisal for teaching staff

(1) Confidential Report (CR)

The Tamil Nadu Technical Education Directorate asks teachers to submit a yearly Confidential report. It should cover the classes they taught, how they taught including new methods or digital tools, work in lab improvement, extra duties, help to department and institution leaders, research, and any new skills learned. Leaders also check how well staff communicate, work in teams, and their honesty, which the institution's head then reviews.

(2) Carrier Advancement Scheme (CAS)

The Career Advancement Scheme (CAS) promotes the growth of faculty and staff in government engineering colleges by improving their skills and capabilities, benefiting the institution and academic community. The UGC 2018 Regulation, which governs CAS, makes promotions easier by focusing on performance in teaching, co-curricular activities, professional development, and research. It eases conditions for advancement, notably by removing the minimum teaching score requirement and prioritizing co-curricular and research achievements. Promotions depend on annual performance reviews, with a committee overseeing the progression. This system values ongoing professional growth and diverse academic contributions.

II. Performance appraisal for non-teaching staff

Non-teaching staff are regularly trained and can study further. They start at Artisan 2-grade, needing an ITI to join. With two years' experience, they can move up to Artisan 1-grade, and then to Instructor or Foreman based on experience and job openings. Diploma holders can become Drafting Officers, like Lab Assistants.

Effective welfare measures for non-teaching staff

- Offers health insurance, pensions, GPF, CPS, and leave refunds for financial security.
- Provides living quarters for teachers to help balance work and life.
- Gives financial aid for research and publications to help with academic and institutional growth.
- Encourages joining development activities for excellence and ongoing learning.
- Offers various leave types, including one-year full-paid maternity leave, for staff well-being.
- Campus medical facilities and regular health check-ups available for staff and their families.
- Provides Leave Travel Allowance and Festival Advance to reduce financial stress.
- Facilitates low-interest loans through a cooperative society for easier financial management.
- Hosts learning programs and workshops for continuous personal and professional growth.
- Ensures campus-wide Wi-Fi to support research and work tasks.
- Organizes annual sports and has a convenience store, improving staff quality of life.

File Description	Document
Upload any additional information	View Document

6.3.2

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

Response: 27.99

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**

2022-23	2021-22	2020-21	2019-20	2018-19
12	0	31	60	35

File Description	Document
Policy document on providing financial support to teachers	View Document
Institutional data in the prescribed format (data template)	View Document
Copy of letter/s indicating financial assistance to teachers and list of teachers receiving financial support year-wise under each head.	View Document
Audited statement of account highlighting the financial support to teachers to attend conferences/workshops and towards membership fee for professional bodies	View Document

6.3.3

Percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDPs)/ Management Development Programmes (MDPs) during the last five years

Response: 52.33

6.3.3.1 **Total number of teachers who have undergone online/ face-to-face Faculty Development Programmes (FDP)/ *Management Development Programs (MDP)* during the last five years**

2022-23	2021-22	2020-21	2019-20	2018-19
39	50	55	85	29

File Description	Document
Refresher course/Faculty Orientation or other programmes as per UGC/AICTE stipulated periods, as participated by teachers year-wise.	View Document
Institutional data in the prescribed format (data template)	View Document
Copy of the certificates of the program attended by teachers.	View Document
Annual reports highlighting the programmes undertaken by the teachers	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

6.4 Financial Management and Resource Mobilization

6.4.1

Institutional strategies for mobilisation of funds other than salary and fees and the optimal utilisation of resources

Describe the resource mobilisation policy and procedures of the Institution within a maximum of 500 words

Response:

Response:

1. Block Grant Fund:

The college depends solely on the Government of Tamilnadu for its financial needs. This financial assistance is given under the head of 'Block grant'. This Block grant is being utilized for infrastructure augmentation and maintenance on various heads.

This budgetary allotment is received by the college during the month of April every year and revised-budget is allotted during the month of January every year.

2. The following are the four funds that are generated through IRG.

1. Corpus fund
2. Staff development
3. Depreciation fund
4. Maintenance fund

Utilization of these four funds will be as may be decided by Board of Governors (BOG) of the institute.

2.1 Corpus Fund

- Contributions/donations/grants by Industry, Association, Foundation Trusts, or any other organization in India or abroad.
- Alumni, faculty, Staff, Student, Well-wishers of the Institute.
- Matching or other grants etc., if any, sanctioned by the State Government/Government of India.
- Savings from Tuition Fee and Interest accrued thereon.
- 50% savings from Development and other fees, if any, collected from the students.
- 50% of institute's share of net income from institute-industry interaction leading to internal revenue generation activities.

Utilisation

- Development of Institute such as renewal of existing infrastructure, creation of new one etc.

2.2 Staff Development Fund

- Full amount of institutions share of net Income from continuing education programme.
- 50% of institute's share of net income from Institute-industry Interaction relating to internal revenue generated activities.
- 50% of the institutions share out of IRG from consultancy services.
- Residual portion of institutions Income from Development and other fees, if any.

Utilisation:

- Faculty and Staff upgradation.

2.3 Depreciation Fund

- 25% of the institutions share of net income from consultancy services upto 50% of the Internal Revenue generated by rational utilization of available facilities like Academic space, Play ground, Seminar, Conference hall, Equipment etc.
- Upto 50% of the savings from Block Grant and sanctioned Budgeted
- 50% of institute's share of net income from calibration, testing, training courses for target groups etc.

Utilisation

- for removing obsolescence i.e. unserviceable equipment replacement purposes.

2.4 Maintenance Fund

- Upto 25% of the institution's share of net income from consultancy.
- Upto 50% of the revenue generated, by rational utilization of available facilities in the institute like Academic space, Play ground Seminar/Conference Hall, Equipment etc.
- Upto 50% of the Savings from Block Grant and sanctioned Budgeted expenditure (non-plan).
- 50% of institutes share of net income from calibration and testing, training courses for target groups etc.

Utilisation

- Usual and regular maintenance of Equipment and Facilities of the institute.

3. Special Fees and Development Fees:

In addition to above mentioned four funds, funds are being utilized under heads of special fees, development fees and computer charges fee that are collected annually from students of this institution.

The funds collected under Special fees were utilized for expenses towards sports & games, library utility calendar magazines and students technical association & Services.

The development funds were allotted for capital equipment, maintenance of equipment, stores & consumables, staff development & Training and furniture repairs and maintenance.

File Description	Document
Upload any additional information	View Document

6.4.2

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

Response: 356.92

6.4.2.1 **Total Grants received from government/non-government bodies, philanthropists year wise during last five years *(not covered in Criterion III and V)* (INR in Lakhs)**

2022-23	2021-22	2020-21	2019-20	2018-19
0	0	47.07	231.44	78.41

File Description	Document
Institutional data in the prescribed format (data template)	View Document
Copy of the sanction letters received from government/ non government bodies and philanthropists	View Document
Annual audited statements of accounts highlighting the grants received	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

6.4.3

Institution regularly conducts internal and external financial audits regularly

Enumerate the various internal and external financial audits carried out during the last five years with the mechanism for settling audit objections within a maximum of 500 words

Response:

Institute regularly conducts both internal and external Audits.

Internal Financial Audit:

Internal audits are conducted annually by representatives from the Directorate of Technical Education (DOTE). The audit dates for each academic year are as follows:

Academic Year	Audit held on
2018-2019	15.07.2019 to19.07.2019
2019-2020	05.03.2021 to 11.03.2021
2020-2021	17.09.2021to 23.09.2021
2021-2022	19.09.2022 to 23.09.2022
2022-2023	22.05.2023 to 26.05.2023

The amounts mentioned in each year's audit have been meticulously verified against office records and reconciled with bank statements.

External Financial Audits:

External Audit is conducted by Principal Accountant General (PAG), Tamil Nadu. In this Controller and Auditor Generals (CAG) of India conduct audit for both Block Grants and Controller of Examination (COE) funds.

The Compliance Audit will involve scrutiny of records, covering the period from April 2012 to January 2021, maintained at the office of Government College of Engineering, Salem

The compliance audit adhered to the auditing standards issued by the Controller and Auditor General (CAG) of India. The personnel involved and period in which audit took place are given below:

S. No.	Name	Designation	Date in which Audit was carried out
1.	Mr. V. Jagadish	Senior Audit Officer	15.02.2021-19.02.2021
2.	Mr. V. R. Rajesh	Asst. Audit Officer	15.02.2021-19.02.2021
3.	Mr. M. Sundareswaran	Supervisor	16.02.2021-19.02.2021
4.	Mr. K. Rajakumar	Asst. Supervisor	15.02.2021-19.02.2021

The Inspection Report consists of the following: -

- Overview Of the Audit Units.
- Functional/Geographical Jurisdiction
- Budget Financial Performance
- Overall Hierarchy of The Department/Auditee Unit
- Scope Of Audit, Etc.
- Audit Findings for Which Action Has to Be Initiated.
- Follow Up on The Findings Outstanding from Previous Inspection Reports.
- Best Practices, if Any.
- Acknowledgement.

TEQIP funds audit:

Statutory audit and internal audit are conducted for TEQIP funds regularly. Statutory audit is conducted every year and internal audit is conducted every 6 months. These audits are conducted by Chartered Accountants.

The TEQIP funds underwent independent auditing for a period of 01.01.2028 to 31.01.2022.

Mechanism for settling audit objections:

Discrepancies identified during external audits are carefully reviewed by the audit committee and management team.

Discussions were held with the external auditors to understand the nature and significance of the identified issues.

Efforts are made to address the objections in a timely manner, and corrective actions are implemented based on the recommendations provided by the auditors. The audit committee oversees the resolution process to ensure transparency and accountability.

File Description	Document
Upload any additional information	View Document

6.5 Internal Quality Assurance System

6.5.1

Internal Quality Assurance Cell (IQAC)/ Internal Quality Assurance System (IQAS) has contributed significantly for institutionalizing the quality assurance strategies and processes, by constantly reviewing the teaching-learning process, structures & methodologies of operations and learning outcomes, at periodic intervals

Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes visible in terms of –

- **Incremental improvements made for the preceding five years with regard to quality (in case of first cycle)**
- **Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives (second and subsequent cycles)**

Describe two practices institutionalized as a result of IQAC initiatives within a maximum of 500 words

Response:

The following are the two practices institutionalized as a result of IQAC initiatives:

Practice 1: Enhancing Outcome Based Education at GCE Salem

Introduction:

The Outcome-Based Education (OBE) system was introduced at GCE Salem in the academic year 2016. As this significant shift aimed to align the institution's curriculum with industry requirements, there is a considerable thought of revision of the syllabus in 2018, focusing on the incorporation of Course Outcomes (CO) and Program Outcomes (PO) as per AICTE model curriculum.

This report provides an overview of the progress made focusing on curriculum development, outcome mapping, evaluation processes, and innovative additions since the establishment of IQAC in the year 2018.

Developing Feedback Mechanism:

As an initiative of feedback mechanism, IQAC developed a stakeholder feedback policy for students, teachers, Alumni, Employer and Parents in the year 2019. This includes feedback mechanism, sample feedback forms and feedback process. The responses received from the stakeholders were considered while revising the syllabus.

In the year 2023, online feedback system for all stakeholders and PO and PSO Exit Survey Forms has been introduced.

CO and PO Mapping and Evaluation of CO-PO attainment:

To enhance the effectiveness of OBE, a meticulous mapping exercise was conducted to align COs with POs.

For which, the Internal Quality Assurance Cell (IQAC) at GCE Salem has taken further steps to enhance the implementation of OBE.

One such initiative is the development of a Course Outcome - Program Outcome manual, which serves as a comprehensive guide for faculty and students in understanding and aligning their learning objectives with the broader program goals.

To facilitate the assessment of CO and PO attainment, the IQAC has developed Excel sheets tailored for each course. These sheets are designed to streamline the process of tracking and evaluating student performance against the specified outcomes. Faculty members utilize these sheets to input data related to student assessments, including examinations, assignments and tutorials.

The Excel sheets incorporate formulas and algorithms to automatically calculate the attainment levels of COs and POs based on the assessment data provided.

By developing the CO - PO manual and implementing Excel sheets for tracking CO and PO attainment, the IQAC at GCE Salem demonstrates its commitment to fostering a culture of accountability, transparency, and continuous quality enhancement in line with the principles of Outcome-Based Education.

Thus Evaluation of CO and PO attainment was implemented for each semester across all courses.

Practice 2: Internalization of quality culture

Post Accreditation Quality Initiatives

Establishment of IQAC office

Formation of IQAC members

Quality Sustenance Initiatives

Conduct of regular IQAC meetings

Documentation of various activities leading to quality improvement

Timely submission of AQAR to NAAC

Quality Enhancement Initiatives

Setting quality benchmarks for various academic and administrative activities of the institution

Coordinating in conduct of Program Advisory Committee meeting at department level

Collection of online feedback system from various stakeholders

Ensuring coordination among students/faculty participation in NPTEL courses

Quality Assurance Initiatives

Conduct of Academic audit

Conduct of quality related programmes for teaching faculty and non-teaching faculty

Participation in NIRF Ranking

File Description	Document
Upload 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

Describe any two examples of institutional reviews and implementation of teaching learning reforms facilitated by the IQAC within a maximum of 500 words each.

Response:

The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals

IQAC has institutionalized the following to review the teaching-learning process:

The Class Committee meetings, conducted three times per semester, serve as a valuable platform for feedback on the teaching-learning process. The meeting is chaired by a senior faculty member along with subject-specific faculty members and at least 10 students, and discussed the attendance percentage, series tests performance, industrial visit and any other matter following each Continuous Internal Assessment. The suggestions from students as well as faculty are received and subsequently passed on to the Head of the Department for review and necessary actions.

Additionally, a structured approach is adopted at the semester's end, where student feedback on both the curriculum and teaching-learning processes is systematically collected online through Google Forms by the IQAC. This comprehensive feedback, coupled with the evaluation of Course Outcome (CO) attainment for all courses, are presented in department level meeting, namely Program Advisory Committee (PAC) consisting of Head of the Department, senior faculty members, Alumni and industry experts

PAC is held every year and discusses the CO attainment against target values for all courses. Attainment

of Program Outcomes and Program Specific Outcomes are also discussed during the meeting. The internship and placement statistics are also discussed here. The committee provides recommendations for further improvements of teaching-learning process and takes necessary actions.

These recommendations are then forwarded to Board of Studies and subsequently Academic Council for any changes in curriculum and syllabi of revision.

Academic Audit:

IQAC takes responsibility for conducting academic audit every semester to evaluate the academic processes. The faculty members assigned for auditing meticulously examine various quality indicators aligned with NAAC guidelines. They offer valuable suggestions for further improvement based on their assessments. Subsequently, the Head of the department, guided by these suggestions, identifies areas with scope for improvement and initiates necessary actions to enhance the academic quality.

File Description	Document
Upload any additional information	View Document

6.5.3

Institution has adopted the following for Quality assurance*:*

1. **Academic and Administrative Audit (AAA) and follow up action taken**
2. **Conferences, Seminars, Workshops on quality conducted**
3. **Collaborative quality initiatives with other institution(s)**
4. **Orientation programme on quality issues for teachers and students**
5. **Participation in NIRF and other recognized ranking like Shanghai Ranking, QS Ranking Times Ranking etc**
6. **Any other quality audit recognized by state, national or international agencies**

Response: A. Any 5 or more of the above

File Description	Document
Quality audit reports/certificate as applicable and valid for the assessment period	View Document
NIRF report, AAA report and details on follow up actions	View Document
List of Collaborative quality initiatives with other institution(s) along with brochures and geo-tagged photos with caption and date	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document
Link to Minute of IQAC meetings, hosted on HEI website	View Document

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1

Institution has initiated the Gender Audit and measures for the promotion of gender equity during the last five years.

Describe the gender equity & sensitization in curricular and co-curricular activities, facilities for women on campus etc., within 500 words

Response:

The institution actively promoted gender equity from 2018-2019 to 2022-2023 and conducted a Gender Audit to assess the effectiveness of gender equity, and fostering a gender-sensitive campus with diverse measures for inclusivity and empowerment.

Gender Audit

The institution assessed gender equity effectiveness through extensive data analysis. The audit examined the distribution of students, academic performance, faculty distribution, and NSS and NCC enrolments from 2018 to 2023, facilitating targeted improvements.

In 2022-2023, the overall percentage of women across all departments was 44.51%, while the female teaching faculty and non-teaching faculty percentages were 53.52% and 32.11%, respectively. The institution has also monitored the participation of female students in NSS and NCC programs, with percentages standing at 42% and 14%, respectively.

Committees and Cells for Gender Equity

The institution has established various committees and cells to address specific issues related to gender equity. including

- Women Empowerment Cell
- Anti-Ragging Committee
- Anti-Sexual Harassment Committee
- Anti-Ragging Squad
- Grievance Cell

Each committee operates with clear constitutional guidelines, conducting meetings, maintaining minutes, and ensuring attendance. This reflects the institution's commitment to transparency and accountability in addressing gender-related concerns.

The commitment to creating a gender-sensitive campus is further evident through establishing committees and cells that address specific gender-related issues. These collective efforts underline the institution's dedication to fostering an inclusive and supportive environment for everyone within its community.

The Grievance Addressable Committee at our college is committed to ensuring a fair and transparent process for addressing student concerns. The committee is a vital resource for students seeking to voice their issues and suggestions.

Anti-Gender Harassment/Internal Complaint Committee

The institution has established a proactive Anti-gender Harassment cell with an Internal Complaints Committee to address grievances promptly.

Women Empowerment Cell

The following programs were conducted at GCE, Salem, for the prevention of sexual harassment. All undergraduate and postgraduate students, as well as faculty members, participated in these programs:

- “Sexual Harassment Prevention & Awareness Training” was conducted on 08.03.2019.
- An “Awareness programme on Sexual Harassment” was conducted on 09.03.2020.
- “A step against Discrimination, Affirmative Action, Sexual Harassment” was conducted on 08.03.2021.
- “Understanding Sexual Harassment Law in Action” was conducted on 08.03.2023.

Infrastructure Measures for Gender Equity

The institution has taken the following concrete measures through infrastructure enhancements to promote gender equity on campus.

- Installation of CCTV cameras at vital points
- Construction of concrete walls for a secured campus
- Deployment of 24*7 security guards
- Provision of fire extinguishers.

These measures collectively contribute to creating a safe and conducive environment for all members of the institution.

Common room for women

Common rooms and washrooms are available for women faculty and girl students.

Health Centre

The institution's health center offers comprehensive care with a dedicated doctor and a nurse catering to the health needs of both faculty and students.

File Description	Document
Upload any additional information	View Document

7.1.2

The Institution has facilities for alternate sources of energy and energy conservation measures
1. Solar energy
2. Biogas plant
3. Wheeling to the Grid
4. Sensor-based energy conservation
5. Use of LED bulbs/ power efficient equipment
6. Wind mill or any other clean green energy

Response: A. Any 4 or more of the above

File Description	Document
Permission document for connecting to the grid from the Government/ Electricity authority	View Document
Geo-tagged photographs of the facilities.	View Document
Bills for the purchase of equipment's for the facilities created under this metric	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

7.1.3

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

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

Response:

Solid Waste Management:

Comprehensive Solid Waste Management Approach:

The Government College of Engineering, Salem, has implemented a strategic solid waste management system that aligns with Sustainable Development Goal (SDG) 11: Sustainable Cities and Communities and SDG 12: Responsible Consumption and Production. This system includes several composting pits that generate organic fertilizer for gardening plants. This practice is also extended to the trees and plants in nearby villages during activities carried out by NSS units, thereby promoting sustainable use of terrestrial ecosystems and supporting SDG 15: Life on Land. This approach also contributes to SDG 13:

Climate Action by reducing waste and promoting sustainability practices. Additionally, we collect food waste from the hostels and provide it to a vendor for feeding cattle, which supports SDG 2: Zero Hunger by contributing to sustainable food production systems and implementing resilient agricultural practices.

Efficient Solid Waste Collection Mechanism:

The Campus Solid Waste Management program segregates and recycles various wastes, including organic, paper, plastics, and e-waste, aligning with the Swachh Bharat initiative. Waste is categorized into degradable and non-degradable categories and then handed to Salem Municipal Corporation. We have placed large dustbins across the campus for daily collection to manage waste efficiently, with local authorities responsible for their regular clearance.

Innovative Efforts to Reduce Plastic Usage:

We have taken proactive measures to reduce plastic consumption by putting up banners and signboards at various places around the campus. We have also conducted various awareness programs on solid waste management to promote responsible waste disposal practices. Occasionally, we serve tea in stainless steel or ceramic cups to avoid using plastics. We conducted various awareness program such as Swachhata Hi Seva -2019, Plastic waste free campaign, Awareness of using cloth bags in place of plastic bags, and One-day awareness program on single use plastics.

Liquid Waste Management:

We collect and treat wastewater in two oxidation ponds, efficiently managing liquid waste. The cleaning process is enhanced through biological means, as these ponds naturally facilitate the biological breakdown of pollutants. Water evaporates from ponds, concentrating sludge removed as needed to maintain treatment efficiency. This method is environmentally friendly and emphasizes sustainability.

E-waste management:

Electronic waste, or e-waste, is generated from computer laboratories, electronic labs, and administrative offices. We effectively segregate and store all electronic waste, including unused computers and accessories, ensuring proper handling. We prefer a buy-back policy for technology upgrades instead of new procurements. We also condemn e-waste campus-wide, ensuring minimizing environmental impact and responsible handling. Finally, we educate the students importance of recycling and reusing electronic components by transforming waste materials into creative and functional models.

Waste Recycling System:

Our waste recycling system includes composting pits that convert bio-degradable waste into fertilizer with properly designed drainage system and a natural oxidation pond where natural evaporation separates sludge and water, supporting natural ecosystems. Finally, it is essential to note that our institute does not produce biomedical waste, hazardous chemicals, or radioactive waste.

File Description	Document
Relevant documents like agreements/MoUs with Government and other approved agencies	View Document
Geo-tagged photographs of the facilities	View Document

7.1.4

Water conservation facilities available in the Institution:

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

Response: A. Any 4 or more of the above

File Description	Document
Green audit reports on water conservation by recognised bodies	View Document
Geo-tagged photographs of the facilities	View Document
Bills for the purchase of equipment’s for the facilities created under this metric	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

7.1.5

Green campus initiatives include

Describe the Green campus initiative of the institution including Restricted entry of automobiles, Use of Bicycles/ Battery powered vehicles , Pedestrian Friendly pathways , Ban on use of Plastic, landscaping with trees and plants etc in 500 words

Response:

The Institute is deeply committed to environmental sustainability and has undertaken several strategic initiatives to ensure the campus remains a beacon of ecological consciousness and accessibility for all. Here's an overview of the steps we've taken to achieve these goals:

Embracing Public Transport and Restricting Automobile Entry

· We understand the importance of reducing our carbon footprint and have made a conscious effort

to limit automobile entry onto the campus.

· Faculty and students are encouraged to utilize public transportation, aligning with our commitment to sustainability.

· The College owns a bus for staff and students to commute and encourages the use of public transport.

Promoting Bicycle Use and Pedestrian-Friendly Pathways

· The campus has well-maintained roads and pedestrian-friendly pathways, ensuring safe and enjoyable commutes.

· We recognize the benefits of cycling and walking for personal health and environmental sustainability.

· All are encouraged to use bicycles for mobility across the campus and its vicinity.

· Sign boards are strategically placed at every turn and crossing to enhance safety and accessibility.

Implementing a Ban on Plastic Use

The Institute introduced separate bins for plastic waste collection and placed educational posters and signage across the campus to raise awareness about reducing plastic usage. This initiative has significantly reduced plastic waste, creating a cleaner and healthier environment. The institution actively organizes outreach programs that promote the use of cloth bags, such as "Impact of Plastics on Earth" and "No Plastics and Solid Waste Management," for societal benefit.

Enhancing Greenery and Sustainable Landscaping

· The campus is nestled amidst lush greenery, featuring a variety of trees and plants.

· On request from the College, the Tamil Nadu Forest Department planted 7810 trees of 21 varieties at the campus under the TNRSP-II scheme.

· The institution actively organizes outreach programs focused on promoting green practices such as "Tree Plantation," "One Tree – One Student," "Go Green, Clean India," "We Need to Plant Trees to Shade Ourselves," "Save Trees and Save Planet," and "Puneet Sagar Abhiyam" at various villages nearby the college campus.

· Environmental Science education is incorporated into the modern curriculum to enhance student awareness of environmental issues and sustainability.

· Meticulous landscaping enhances the campus's visual appeal and creates a pleasant ambiance.

· Green and Energy audit has been initiated to measure the progress and also identify the areas for further improvement.

Ensuring Accessibility

· The campus is intentionally designed for inclusivity and accessibility for everyone.

· Ramps are installed to facilitate easy classroom access for individuals with mobility challenges.

Washrooms are adapted to be disabled-friendly, underscoring our commitment to ensuring accessibility for all community members.

File Description	Document
Policy document on the green campus/plastic free campus	View Document
Geo-tagged photographs/videos of the facilities	View Document
Circulars and report of activities for the implementation of the initiatives document	View Document

7.1.6

Quality audits on environment and energy are regularly undertaken by the institution

The institutional environment and energy initiatives are confirmed through the following

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

Response: A. All of the above

File Description	Document
Report on environmental promotion and sustainability activities conducted beyond the campus with geo-tagged photographs with caption and date.	View Document
Policy document on environment and energy usage Certificate from the auditing agency	View Document
Green audit/environmental audit report from recognized bodies	View Document
Certificates of the awards received from recognized agency (if any).	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

7.1.7

The Institution has Differently-abled (Divyangjan) friendly, barrier free environment

Write description covering the various components of barrier free environment in your institution in maximum of 500 words

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

Response:

The Government College of Engineering, Salem, has taken significant steps to make our campus more accessible to our diverse community, including students and staff with various disabilities. We believe that accessibility is not just about physical changes but also about creating a culture of inclusivity and support. Some of the key initiatives we have implemented include:

Installation of Ramps/Lifts: Install ramps and lifts at strategic locations across the campus, including department buildings, the library block, and the digital library block, to ensure that individuals with mobility challenges can navigate our campus easily.

Provision of Disabled-Friendly Washrooms: All Provision of disabled-friendly washrooms with sliding doors designed to accommodate individuals with disabilities comfortably.

Implementation of Signage: Implement extensive signage, including tactile path lights, display boards, and signposts, to help differently-abled individuals navigate the premises effectively.

Deployment of Assistive Technology and Support: Providing various assistive technology and support services to students with disabilities during end-semester examinations. These include human assistance, reader services, scribes, soft copies of reading materials, and screen reading software. These accommodations are designed to create an inclusive examination experience and enable all students to demonstrate their knowledge and skills to the best of their abilities.

In addition, we encourage the following facilities:

Encouragement for Utilizing Assistive Devices Utilization of assistive devices by individuals with disabilities on campus are encouraged.

Extra Time Allocation: The Controller of Examination (COE) will allocate 1 hour of extra time for disabled candidates during examinations based on producing necessary medical certificate.

Emphasis on Human Assistance: The institution encourages all staff members to prioritize providing human assistance to disabled individuals on campus, ensuring their needs are met with utmost care.

Through these measures, we aim to foster inclusivity and create an environment where all individuals can excel and prosper in their academic endeavors, regardless of their abilities. Our institution's humanitarian policy underscores professional and ethical values by creating a welcoming environment for differently-abled individuals, affirming that people with disabilities possess equal rights and dignity as any other individuals.

File Description	Document
Upload any additional information	View Document

7.1.8

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

Response:

Provision of an Inclusive Environment

The institution aims to provide an inclusive environment that offers diverse opportunities for education, research, and innovation to all communal groups. Discrimination based on community, religion, caste, color, or language is strictly prohibited in the institution. Institution-wide initiatives to plant saplings were conducted during the Republic Day and Independence Day celebrations.

Initiatives towards Harmony and Tolerance

The institution conducts several initiatives to promote harmony, tolerance, and unity in diversity, such as courses on "Indian Constitution and Universal Human Values" made compulsory for all students across all disciplines, planting saplings during Republic Day and Independence Day celebrations, and celebrating important days like

- Voter's Day
- Yoga Day
- World Environment Day
- Social Justice Day
- Anti-Elder Abuse Day
- Anti-Labor Day

The institution also conducts several social activities, such as eye screening camps, blood donation camps, and helping children in orphanages, in which NCC, NSS, YRC, and Leo club students actively participate. The Leo Club, a youth organization affiliated with Lions Clubs International, plays a significant role in these activities.

Additionally, the National Youth Parliament Scheme (NYPS) enables the student community to learn about the parliament's practices and procedures.

Initiatives towards Socio-economic diversity:

The institute facilitates scholarships for students from rural and economically disadvantaged backgrounds, provided by state and central governments.

Initiatives towards Cultural diversity

The institution encourages students to participate in national-level technical symposia, state-level cultural events, and sports activities through clubs/cells and extracurricular activities like sports, cultural events, and yoga. The Tamil Literary Forum organizes the Vidiyal Programme annually to encourage cultural aspects. This program provides a platform to showcase talents and fosters a sense of cultural appreciation and understanding. National festivals and events like

- Bharatham
- Villupattu
- Paraiattam
- Theru koothu
- Bommalattam
- Kolatam
- Karagam
- Silambam

Additionally, Tamil literature club releases “Agaram” tamil magazine which includes poetry and literacy written by exclusively by students. English literary clubs are organized yearly to encourage students to exhibit their creative abilities and latent talents. English literacy club also releases “Scribbles” which includes poems, short stories, and language skills. During the club sessions, events and games are conducted to help students improve their communication skills and vocabulary knowledge through on-the-spot speaking, puzzles, etc.

Initiatives towards Regional diversity:

The institution also provides scholarships from state and central governments to economically disadvantaged students from rural areas and helps them access them. Furthermore, the institution admits students from diverse districts of Tamil Nadu and from the northeastern states, Kashmir, and the Andaman-Nicobar Islands of India. These students are provided with equal opportunities to participate in co-curricular activities and a robust support system to ensure their academic success. This fosters interaction among students from various parts of Tamil Nadu and the nation. Additionally, the institution conducts an induction program for first-year students during their inaugural college week.

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

7.1.9

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

Describe the various activities in the Institution for inculcating values for being responsible citizens as reflected in the Constitution of India within 500 words.

Response:

Fostering Citizen Duties and Responsibilities:

To instill and emphasize the significance of constitutional values and rights, the institution organises various programmes and pledges involving both faculty and students across the campus. These pledges are aligned with various national observances such as Anti-Untouchability Day on January 30,, Anti-Labour Day on February 9, National Integration Day on November 19, National Voters Day on January 25, and Equality Day on April 13. These observances not only reflect college’s commitment to uphold democratic values but also resonate with Sustainable Development Goals (SDGs), particularly SDG 16, which aims to promote peaceful and inclusive societies for sustainable development.

National Youth Parliament Scheme:

In an endeavour to deepen understanding and engagement with democratic processes, institution supports the Youth Parliament program initiated by the Ministry of Parliamentary Affairs. This initiative reflects SDG 4, which emphasizes quality education and lifelong learning opportunities for all.

Cultivating Human Values Through Education:

Curriculum is designed to incorporate human values through various courses, including Value Education, Yoga & Values for Holistic Development, and Universal Human Values: Understanding Harmony and

Professional Ethics & Human Values. Additionally, curriculum offer non-credit courses such as Induction Program, Personality and Character Development Programs, the Indian Constitution, and Essence of Indian Knowledge Tradition. The celebration of International Yoga Day on June 21, 2023, with seminars and demonstrations, further underscores commitment to holistic development, aligning with SDG 3, which focuses on ensuring healthy lives and promoting well-being at all ages.

Engagement in Social and Environmental Initiatives:

The institution initiates measure to inculcate a sense of social responsibilities among students and employees through NSS, NCC, Standards Club, Rotaract Club, Youth Red Cross, and Energy-Environment Club.

The list of activities focussed on the values and responsibilities are as follows:

1. Gaja cyclone relief campaign
2. Home Visit Thai anbu illam & Nesakarangal
3. Go Green on Republic day by NCC
4. Anit – tobacco day awareness program
5. Home Visit - Muthiyor Illam-Thai Anbu Illam
6. Home Visit -Nesakarangal
7. Regular cleaning at nearby village
8. Child labor awareness Pledge and Rally
9. Awareness program on public health
10. Anti-Elder Abuse day awareness Pledge and Rally
11. NSS Special Camp in an adopted village
12. Eye Check Camp in the Village
13. Anti-Drug Pledge on Drug Free Tamil Nadu
14. Green Patriotism: Tree plantation by NCC on Independence Day
15. World Standards Day - Awareness about BIS Standards and BIS Care App
16. Child care Awareness
17. Donating blood to Govt. Primary Health Centre by the Staffs and Students of GCE, Salem
18. Awareness on World Consumer Rights Day and Rally

The description about these activities are given in additional information.

File Description	Document
Details of activities that inculcate values necessary to nurture students to become responsible citizens	View Document

7.1.10

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

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

Response: A. All of the above

File Description	Document
Report on the student attributes facilitated by the Institution	View Document
Policy document on code of ethics.	View Document
Handbooks, manuals and brochures on human values and professional ethics	View Document
Document showing the Code of Conduct for students, teachers, governing body and administration as approved by the competent authority.	View Document
Constitution and proceedings of the monitoring committee.	View Document
Circulars and geo-tagged photographs with date and caption of the activities organized under this metric for teachers, students, administrators and other staff	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

7.2 Best Practices

7.2.1

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

Response:

Best Practice 1: Outcome-Based Education

1. Objectives of Outcome Based Education:

- To design the curriculum framework of the program integrating well defined learning outcomes.
- To use rubrics-based assessments.
- To ensure alignment between curriculum, instructional methods, and assessment practices to

effectively measure student attainment of outcomes.
- To establish a quality assurance system and program improvement practices based on feedback from various stakeholders.

2. Context of the Best practice:

In the context of OBE, at program level, the OBE process begins with defining vision and mission statements, followed by developing Program Educational Objectives (PEOs). Then a set of Program Outcomes(POs) as per Washington Accord guidelines and Program Specific Outcomes(PSOs) are developed. Once this program structure is done, curriculum framework integrating a well-defined course outcomes (COs) for each course is designed at the course level. The mapping of COs with one or more POs and PSOs are done in order to measure the attainment of PO and PSO.

3. The Practice and its Uniqueness:

- In the context of OBE, curriculum and syllabus for each course is designed towards the attainment of PEOs, POs, PSOs and COs.
- A structure feedback mechanism involving faculty, student, alumni, subject and industry experts regarding PEOs, POs and PSOs is established, ensuring the necessary revisions in curriculum and syllabi in relevance to technical and industry demands.
- Internal Quality Assurance Cell was established for the periodic assessment of outcomes and identify discrepancies for further improvement at institute level, while Program Advisory Committee(PAC) and Board of Studies (BOS) at program level.
- The rubrics based assessment practice is implemented for the evaluation of CO and PO attainment.
- Students-centric methods such as NPTEL courses, Industrial Project, Internship and skill based innovation courses and students-centric learning infrastructure such as Innovate TN and AR-VR lab are established.

4.Evidence of success:

- Success in OBE implementation at GCE, Salem is evident through its integration into all programs. Workshops were conducted to enhance faculty skills and knowledge in OBE, supplemented by certified courses from NITTT.
- Question papers are meticulously designed aligning with Course Outcomes and Bloom's Taxonomy.
- The preparation of an OBE manual streamlines the evaluation process and provides clear guidelines for faculty, contributing to the effective implementation and evaluation of OBE across programs.
- For each program, assessment methods based on rubrics are utilized to evaluate the attainment of Program Outcomes (PO) and Program Specific Outcomes (PSO). Target levels are set, and the results are analyzed to measure achievement. Establishment of PAC facilitates the preparation of action taken report for further improvement.
- Our students consistently outperform in state and national level exams and quality improvement is evident through increment in top salary package offered.
- Analysing the academic performance trends between the two batches reveals both strengths and areas for improvement.

	2018-2022 Batch	2019-2023 Batch
UG		
First Year	77.52	71.30
Final Year	98.00	99.39
PG		
First Year	96.67	96.97
Second Year	100	100

5. Problems encountered and resources required:

The main challenge that the institution faced is adoption of faculty members towards transitioning from traditional teaching methods to the OBE approach, as it requires the development of new program curriculum making all possible adjustments in existing courses and introducing new courses with well-defined course outcomes, which, in turn, are to be mapped with PEOs, POs and PSOs. To overcome this, the following approach was adopted:

A series of workshops and seminars were organised for faculty members to understand the principles of OBE and how to implement them effectively.

Additional information:

Best Practice 2: Clean and Green Campus

1. Objective of the practice:

To promote sustainable environment through effective waste management, energy conservation, sustainable resource use, and afforestation initiatives.

2. The context:

One of the major challenges encountered by GCE Salem in its green campus initiatives is maintaining sustainability across its approximately 231 acres campus. Higher education institutions play a vital role in contributing to the Sustainable Development Goals (SDGs) through environmental disclosures. Recognizing the growing need for green initiatives on campus, Environmental Club involving both faculty and students has been established by focusing on energy, water, and waste management.

3. The practice:

- Miyawaki method is being practiced in the institution, i.e., selecting appropriate native tree species, involving the college community in planting activities, and ensuring the long-term care and expansion of these green areas. On request from the Principal, Tamil Nadu Forest Department have planted 7810 trees of 21 different varieties under TNRSP-II scheme at the campus.

- Use of bicycles for mobility within the campus and nearby is in practice.
- Entry of heavy vehicles inside the campus is restricted.
- The solar energy-based street lighting system, water heating system for hostel and solar power plant (9.9 kWP) is implemented. LED lights are installed phase by phase in the campus which can reduce the energy consumption.
- The college has strategically placed compost pits to manage waste effectively. Food waste from the hostel is collected daily and utilized for cattle feed through auctions. Additionally, the initiation of a biogas plant with a capacity of 200kg in hostels is underway.
- The wastewater generated in departments is minimal, allowing for disposal through groundwater passage as its quantity is small, with most of it naturally evaporating. Hostel wastewater is directed to oxidation ponds, facilitating the organic matter's decomposition through biological processes.
- For effective water management, the following techniques are employed:

Rainwater harvesting

Bore well /Open well recharge.

4. Evidence of Success:

- Use of LED bulbs, solar street lighting and solar invertor inside the campus has significantly reduced the energy consumption.
- Effective awareness programs have led to the creation of a green, plastic-free campus, with the adoption of cloth banners for all college functions.
- Regular environmental and energy audits are conducted by the institution to ensure ongoing sustainability efforts.
- The institution was recognized with the Best Green Campus Award in the year 2022.

5. Problems Encountered and Resources Required:

As the college campus spans over 231 acres, transforming into eco-friendly campus requires more investment of fund and large manpower.

Additional
information:
https://gcesalem.edu.in/sites/gcesalem.edu.in/files/uploaded%20files/7.2.1%20-%20BEST%20PRACTICE%20-2%20CLEAN%20AND%20GREEN.pdf

7.3 Institutional Distinctiveness

7.3.1

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

Response:

Title: Fostering Innovation and Entrepreneurship: A Case Study of Government College of Engineering, Salem

A student-centric approach is paramount at the Government College of Engineering (GCE) Salem. This commitment is evident through integrating courses focused on developing skills through innovation for entrepreneurship across all undergraduate programs. GCE Salem prioritizes its student-centric approach, ensuring students gain technical skills and develop an entrepreneurial mindset, critical thinking abilities, and ethical values. This dedication aligns with the institution's vision statements and is facilitated through innovative curriculum design, faculty development initiatives, student learning experiences, and industry partnerships.

Faculty Development Initiatives:

GCE Salem recognizes the crucial role of faculty members in shaping the future generation of engineers and citizens. To equip them with the skills and knowledge necessary to promote innovation and entrepreneurship among students, the institution offers capacity-building programs.

One such initiative is the **Capacity Building Programme**, which aims to enhance the abilities of faculty members to guide students in their entrepreneurial journey. The program has several objectives, including:

- Familiarizing faculty members with the scientific process of innovating and the difference between startups and small companies.
- Developing an entrepreneurial mindset among faculty members, enabling them to identify a problem statement and form teams.
- Enabling faculty members to define real-world problem statements by interacting with industry experts and applying frameworks to convert these challenges into profitable businesses.
- Developing effective communication skills among faculty members to support students in their innovation journey.

The goal of this program is to empower faculty members to foster innovation and entrepreneurship among their students, which will help them succeed in their future careers.

Student Learning Experiences:

At GCE Salem, students are provided with immersive learning experiences that foster innovation, critical thinking, and problem-solving skills. The Ideation Sprint and Engineering Sprint courses are designed to enable students to work collaboratively in interdisciplinary teams, tackle real-world challenges, and develop solutions with societal impact.

The Ideation Sprint: The Ideation Sprint involves a **kick-off session** where students are introduced to the purpose of the boot camp and its role in forming their ideas into Minimum Usable Prototypes (MUPs).

Team building activities create a close and supportive working environment, while the Sandbox session allows students to select real-world problems and curate solutions

The Engineering Sprint

The Engineering Sprint includes a **Machines that make up the world session**, which delves into the fundamentals of engineering and provides hands-on experiences with electronic components, circuits, sensors, Arduino, and I/O interfaces. **The Innovation themes & Street Fight Engineering** activity is a revolutionary concept transforming problem-solving approaches where an interactive group activity titled "Problem Definition using SFE" is conducted. **Programming Paradigm & Brains of Machines** is an activity where students are given a task to develop their product idea into an innovation in various aspects using the Idea Hexagon (X' using six formulas).

Facilities Available in Innovate TN Lab:

Innovate TN Lab provides facilities such as the Industrial Design & Rapid Fabrication Lab, Electronic System Design & Rapid Prototyping Lab, Industrial IoT Lab, Advanced Computing Lab, and Additive Manufacturing Lab.

Protosem:

ProtoSem is a 20-week Graduate Innovation Engineer Certification that offers a comprehensive skills and competency development program with an innovation-centered approach to engineering education. The program is designed for students in their sixth semester across all undergraduate programs and a selection of 45 students are chosen from various UG programs. ProtoSem enables students to design, develop, and deploy innovative solutions to solve real-world problems provided by the industry. This process helps students transform into employable individuals or even technical entrepreneurs. The program aims to cultivate ingenious innovators and ambitious tech entrepreneurs among engineering students by:

Activating Future Ready Talent:

- Graduate Innovation Engineers across Emerging Tech domains

- Transdisciplinary skills & competencies

- Professional Practices & differential Employability

Scaling up Grassroot / Localised Innovation:

- Building innovative solutions for local industry needs/problems

- Strengthening engineering skills and nurturing industrial-grade solutions

- Outcomes-oriented approach to industry-academia partnerships

Building and Harnessing Student Innovation Capacity:

- Innovation-centric, curriculum integrated program

- Managed innovation process

- Co-creation with local industry (MSMEs)

Evidence of Success:

Government College of Engineering (GCE), Salem's Protosem program has shown remarkable outcomes. Forty-five students from six departments participating in the program were placements in renowned industries such as L&T India, Hyundai, Sonacoms, Breaks India Ltd, and the Rani Group of companies. This high placement rate underscores the program's relevance and the quality of training provided.

Moreover, the Protosem program allowed students to undertake projects in various industries, providing them with hands-on experience. As a result, the 45 students, organized into 9 teams, generated 9 innovative ideas. This exposure not only enhanced their understanding of theoretical concepts but also prepared them for the challenges of the professional world.

Here are some of the projects that the students worked on:

- Developing a cost-effective Mql Applicator for Metal Working Machines that utilize multipoint cutting tool
- Corrective measures for shipment of parts
- Overall equipment effectiveness of their plant
- Preventive/predictive maintenance of HMC Machine
- IoT device coupled with Mobile computer for Vision-based Threat Alert system
- Rugged PC
- Smart City Waste Management
- Design and develop a 3u nanosatellite structure
- Design and develop a UHF/VHF Antenna and ground station for satellite tracking

Furthermore, the success of GCE Salem's innovation initiatives is exemplified by one student's participation in the **Tamil Nadu Student Innovators (TNSI) 2022 competition**. The student's project entitled "**Waste Water Treatment for Textile and Dyeing Industry towards pollution-free society"** received a cash prize of **Rs. 1 lakh from the Hon'ble Minister for MSME of Tamil Nadu, Mr. T. M. Anbarasan.** This recognition at a state-level innovation challenge highlights the impact of GCE Salem's programs in nurturing innovative thinking and entrepreneurial spirit among students.

Conclusion:

In conclusion, the Government College of Engineering, Salem's holistic approach to fostering innovation and entrepreneurship yields tangible results, evidenced by student achievements and industry placements, showcasing its impactful initiatives.

Link for additional information:

https://gcesalem.edu.in/sites/gcesalem.edu.in/files/uploaded%20files/7.3.1-merged.pdf

File Description	Document
Appropriate webpage in the Institutional website	View Document

5. CONCLUSION

Additional Information :

The Government College of Engineering in Salem proudly marked a significant milestone in its illustrious history by celebrating its Golden Jubilee Year during 2016-2017. This momentous occasion provided an opportunity to reflect on the institution's rich legacy and acknowledge the remarkable journey it had undertaken over the past five decades.

Throughout this impressive span of 50 years, each department within the college has not only established itself as a bastion of knowledge but has also diligently invested in equipping their laboratories to meet the evolving demands of various academic programs. The commitment to providing state-of-the-art facilities reflects the college's dedication to creating an environment conducive to holistic education.

As the Government College of Engineering in Salem continues to evolve, it has become a symbol of academic excellence and a hub for cutting-edge research. The growth of each department mirrors the institution's overall trajectory, showcasing a commitment to academic rigor, innovation, and relevance in the field of engineering.

In essence, the Government College of Engineering in Salem stands as a shining example of an educational institution that has not only withstood the test of time but has flourished and thrived, continually adapting to the changing landscape of engineering education. As it looks ahead to the future, the college remains committed to its mission of providing quality education and contributing significantly to the advancement of engineering knowledge and practice.

Concluding Remarks :

The Government College of Engineering, Salem (GCE Salem) is the third oldest technical institution in Tamil Nadu. It boasts a rich academic history and traditional legacy.

The Government College of Engineering Salem provides high-quality and affordable education to a large number of rural students. In order to develop a curriculum that meets the demands of industries and enhances students' employability skills, GCE Salem engaged in discussions with industry experts and subject specialists. Based on these consultations, GCE Salem introduced an industry-aligned curriculum that also offers academic flexibility. Through the collaboration between the Government of Tamil Nadu and Anna University, Naan – Muthalvan scheme, aimed at improving the skills of engineering students, has been implemented.

The college has modern facilities, such as laboratories, computer infrastructure, ICT-enabled classrooms, seminar halls, and a digital library. These resources enhance the teaching-learning process for both faculty and students.

GCE Salem has established Innovate_TN lab with Tamil Nadu Startup Innovation Mission (TANSIM) being approved an amount of Rs.100 lakhs /- to develop skills through innovation for entrepreneurship.

Government of Tamil Nadu sanctioned 800 lakhs towards the enhancement of sports facilities in Government college of Engineering, Salem.

The Augmented Reality and Virtual Reality Laboratory was established in the Research and Development block at Government College of Engineering, Salem during May 2022.

Beyond academics, the Government College of Engineering, Salem emphasizes the development of leadership and socio-economic skills through regular club and department association activities. In alignment with our vision, graduates from the institute emerge not only as professionals with profound technical knowledge but also as socially responsible citizens. They are equipped to contribute to the social, economic, and environmental well-being of the community around them and beyond.

Moreover, the college's proactive engagement with alumni provides current students with valuable networking opportunities and real-world insights, further enhancing their readiness for the professional world. Through these comprehensive educational initiatives, GCE Salem continues to be a pivotal institution in shaping the future leaders of society.

6.ANNEXURE

1.Metrics Level Deviations

<table>
<tr><td>Metric ID</td><td>Sub Questions and Answers before and after DVV Verification</td></tr>
<tr><td>2.1.2</td><td>Percentage of seats filled against reserved categories (SC, ST, OBC etc.) as per applicable reservation policy for the first year admission during the last five years

2.1.2.1. Number of actual students admitted from the reserved categories in the first year of the programme year wise during the last five years
Answer before DVV Verification:
<table>
<tr><td>2022-23</td><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td></tr>
<tr><td>382</td><td>325</td><td>322</td><td>346</td><td>357</td></tr>
</table>
Answer After DVV Verification :
<table>
<tr><td>2022-23</td><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td></tr>
<tr><td>382</td><td>325</td><td>322</td><td>340</td><td>357</td></tr>
</table>
2.1.2.2. Number of seats earmarked for reserved category as per GoI/State Govt. rule year wise during the last five years
Answer before DVV Verification:
<table>
<tr><td>2022-23</td><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td></tr>
<tr><td>406</td><td>406</td><td>406</td><td>406</td><td>393</td></tr>
</table>
Answer After DVV Verification :
<table>
<tr><td>2022-23</td><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td></tr>
<tr><td>406</td><td>406</td><td>406</td><td>406</td><td>393</td></tr>
</table>
Remark : Input edited as students admitted can not exceed earmarked seats</td></tr>
<tr><td>5.3.1</td><td>Number of awards/medals for outstanding performance in sports/cultural activities at University / state /national / international Level events during the last five years

5.3.1.1. Number of awards/medals for outstanding performance in sports/cultural activities at University / state / national / international level events (award for a team event should be counted as one) year wise during last five years
Answer before DVV Verification:
<table>
<tr><td>2022-23</td><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td></tr>
<tr><td>31</td><td>17</td><td>9</td><td>3</td><td>6</td></tr>
</table>
Answer After DVV Verification :
<table>
<tr><td>2022-23</td><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td></tr>
</table></td></tr>
</table>

14	5	0	1	2

Remark : Input edited as runner prizes can not be considered

2.Extended Profile Deviations

Extended Profile Deviations
No Deviations