



SELF STUDY REPORT

FOR

2nd CYCLE OF ACCREDITATION

SETHU INSTITUTE OF TECHNOLOGY

**SETHU INSTITUTE OF TECHNOLOGY, PULLOOR - 626115, KARIAPATTI
TALUK, VIRUDHUNAGAR DISTRICT.**

626115

www.sethu.ac.in

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

March 2023

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

SETHU INSTITUTE OF TECHNOLOGY is the brain child of **Mr.S.Mohamed Jaleel, B.Sc.,B.L.**, the Founder and Chairman of the College. The College, a premier Technical self-financing, Private Institution in South India, is located on Madurai – Tuticorin National Highway 45B and about 15 kms from Madurai Airport. The Institute was started with the motto of ‘Knowledge, Service and Progress’ to fulfil the noble aim of sustained growth of the educationally, industrially and economically backward rural area.

Sethu Institute of Technology was established in **1995** with three disciplines of 4-year Bachelor of Engineering (B.E) Degree Programmes. These three degree programmes with an initial intake of 180 students recorded a stupendous growth to offer courses in 13 disciplines of B.E./B.Tech. and 5 disciplines of 2-year M.E. degree programmes with an intake of 1290 students. The College has been approved by All India Council for Technical Education (AICTE) and permanently affiliated to Anna University, Chennai. The College has been accorded Autonomous Status in 2012 by University Grants Commission. The College has been accredited by NAAC with ‘A’ Grade in March 2016.

The College takes much effort for curriculum development in order to offer the students the best possible learning experience. It offers wide range of learning opportunities with Choice Based Credit System. The College has excellent infrastructure, state of the art laboratories, well qualified and motivating faculty members, hostels and various amenities for the students. It has been focusing on Research and Innovation as its goal since the inception of the College. Most of the departments are approved as Research Centres by Anna University. The College has received more than Rs.5.6 Crores from various funding agencies like DRDO, DST, UGC, MSME and EDII for research and innovation.

Vision

To promote excellence in the technical education and scientific research for the benefit of the society

Mission

- To provide quality technical education to fulfill the aspiration of the student and to meet the needs of the Industry
- To provide holistic learning ambience
- To impart skills leading to employability and entrepreneurship
- To establish effective linkage with Industries
- To promote Research and Development activities
- To offer services for the development of society through Education and Technology

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

Sethu Institute of Technology provides knowledge, skills and competencies through effective curricula, faculty and lab infrastructure. In general, the survey indicates that the Students, Alumni and Faculty are satisfied with the academic programmes.

The survey expresses satisfaction on the general infrastructure and ambience, Central Library, Reprographic facility and Transport facility. In Curricular aspects, the design of curriculum and syllabus, adequate choices for electives, engineering design skills provided by the curriculum and alignment of curriculum component for employability are considered as strengths. The survey noted that competency and experience of the faculty members in providing variety of learning experiences, the usage of ICT tools and the clear Programme outcomes & course outcomes are the strengths of the teaching learning process. The guidance given for the innovative projects and the motivation provided for the research publications are the strengths of research and development. The survey also expresses satisfaction on student support services such as soft skill development opportunities, training for placement and encouragement to participate in extra-curricular and co-curricular activities. The Quality assurance initiatives by the Institute, empowerment and enrichment of students and stakeholders' contribution in the development of the Institution are considered to be the strengths of the leadership and governance.

Institutional Weakness

Sethu Institute of Technology provides excellent learning ambience to the students. However, through SWOC analysis, it is found out that few infrastructure like sports facility, hostel and recreation need further improvement. In Curriculum aspects, the balance between theory & practical and modern tool usage should be improved. In Teaching Learning Process, training to improve design skills and exposure to industry practices may be enhanced. The response to feedback should be improved in the College. The survey points out that the contribution of Alumni, Grievance Redressal mechanism and career guidance initiatives should be improved. The survey also points out that the quality publication and Collaborative Research should be promoted.

Institutional Opportunity

From the survey, it is identified that the opportunities available for the College should be utilized properly. The curriculum and assessment systems can be revamped to meet the global emerging trends. The partnership with industries and reputed institutions can be enhanced to improve the practical knowledge and skills of the students. The education system is undergoing vast changes. Online education and distance education play a vital role in providing quality education for the society. The College has a potential to collaborate with foreign universities to improve collaborative learning, research and faculty development. The College shall take efforts to seize these opportunities to improve the quality of the institution.

Institutional Challenge

The education system after pandemic has undergone vast changes with the advent of digital learning process. Even after pandemic, the digital learning plays a vital role. Hence the College should adopt blended learning. As the number of Colleges in Tamil Nadu is increasing, there is a heavy competition among the Colleges. The students have wide opportunities to join in Arts & Science colleges and wide choices of engineering colleges

also. It is a prime endeavour for the College to attract the students for engineering education as well as to enrol them in our college. The lack of motivation and interest among the students in their studies is a major handicap in the teaching learning process. The rising costs and overheads are major concerns for the general public and also for the College. The College should take effort to admit students from various states and also international students.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

Sethu Institute of Technology, in line with its Vision and Mission promotes education in Engineering and Technology for the benefit of the society and it offers a value based, high quality Outcome Based Education to the students with a goal of serving local, national, and global communities. Being an autonomous institution, the College regularly reviews and updates the curriculum based on the guidelines of UGC, AICTE, Anna University and the suggestions received from the stakeholders. The curriculum includes the emerging trends in the fields of Engineering and Technology that are required for the advancement of industrial sector towards modernization and digitization as envisioned in Industry 4.0.

For the purpose of designing and assessing the curriculum and syllabus, Curriculum Planning and Evaluation Cell have been established. The Outcome Based Education followed by the College, offers skill-based and career-based courses that improve employability and entrepreneurial skills. Students can select elective courses from various disciplines under a flexible system which promotes horizontal as well as vertical movement. By studying socially relevant subjects like environmental science, professional ethics, and human rights, the students are developed as responsible citizens. In addition, the courses in emerging trends, the industry designed courses, value added courses and professional skills training courses are offered to help students improve their interdisciplinary skills and bridge the gap between the academia and the industry.

The curricula and syllabi are enriched with the help of a well-established feedback system, which is reviewed by the Boards of Studies and an effective curricula and syllabi is recommended for approval by the Academic Council.

Teaching-learning and Evaluation

The College has a transparent and well-administered mechanism for the enrolment of students. The admission procedure is propagated to the students through website, brochure, awareness programmes to the school students, hand-outs, and social media.

The College meticulously follows all the norms of the regulatory bodies including State and Central Governments. The College provides wide publicity about the scholarship available for the socially and economically weaker students and the scholarship provided to the girl students by the management to promote equity in the enrolment process.

The students enter into the College with different levels of learning as they have studied in various school education streams and the students with various backgrounds leading to various levels of learning. In order to improve their learning levels, Motivational Programmes, Induction Programme, Bridge Courses, and Life Skill Programmes are conducted.

To promote the knowledge and skills of the learners, learner-centric Teaching, Learning and Evaluation (TLE) process has been adapted. Based on the performance, slow and advanced learners are identified. Advanced learners are motivated to achieve their learning objectives through internships, training, online courses and guided to take competitive exams and pursue higher education. Remedial classes, open book and tutorial tests are conducted to assist the slow learners. The College has an effective mentoring system and the mentor guides the students. A mentor who has been assigned 15-20 students evaluates each ward's strengths and weaknesses and provides appropriate guidance. Additionally, the students receive professional counselling from an external counsellor if needed.

The Institute is constantly evolving student-centric methods such as Activity Based Learning, Experiential Learning and Participative Learning to enrich the learning experiences and supplement classroom teaching. ICT enabled tools are also used to improve the cognitive skills of the students. The quality of teachers is improved by conducting Faculty Induction Programmes, Faculty Development Programmes, Workshops, and Seminars.

A clear assessment and evaluation procedure is implemented as per the Autonomous Regulation of the College. Internal assessment is conducted in a transparent manner. Academic audits, Faculty self-appraisals, feedback from students and online student surveys are all used to ensure the quality of teaching, learning and evaluation processes.

Research, Innovations and Extension

The College promotes research activities by providing adequate resources and encouraging research activities among teachers and scholars. The Institution is committed to encourage faculty members to engage in research and innovation. The students are also encouraged to be creative and innovative by participating in a variety of innovative and start-up programmes. Research and Innovation grants around Rs.5.6 Crores have been received from various funding agencies like UGC, AICTE, DST, DRDO, MSME, EDII and TNSCST to establish research facility and carry out projects in various thrust areas. The College promotes industry-based research by having useful interaction with industry and also participates in the industry-promoted technical competitions and start-up ventures. The College provides basic research facilities and the resources for the advanced research are obtained through research grants. The faculty members are motivated to publish their findings in the reputed SCI, Scopus and Web of Science indexed national and International journals. The h-index of the College has been increasing as well.

The Institution has an effective Institution Innovation Council to promote innovation Eco system. Many programmes are organised to broaden the knowledge of cutting-edge technologies in the fields of Innovation, Start-up and Entrepreneurship. The College has obtained innovation grants for the start-up ideas from various agencies. To promote awareness among faculty and students about Intellectual Property Rights (IPR), various programmes are conducted. The College strives hard to establish industry collaboration by providing engineering solutions as industrial consultancy. To promote research and consultancy services, the College has signed Memorandums of Understanding (MoUs) with reputed industries and corporate houses. Extension and outreach programmes are conducted through NSS, YRC, Red Ribbon Club, Women Empowerment Cell and Entrepreneurship Development Cell. These types of extension activities in the neighbourhood community sensitize the students on social issue for their holistic development.

Infrastructure and Learning Resources

The College is spread over an area of 232 acres of land, with built-up area of 45,240sq.m. There are 85 classrooms including Air-conditioned seminar halls, a Conference Hall, and adequate Laboratories, Workshops, Drawing Halls, and an Auditorium. The College provides excellent learning ambience by providing adequate physical resources, Library resources and IT infrastructure for the benefit of the students. The College has separate hostel facility for boys and girls with conducive atmosphere for learning. The hostels also have air-conditioned rooms to cater to the needs of the students.

The central library is fully automated with LIBASOFT software and offers remote access to e-resources. The library has a good collection of book volumes, journals, e-resources, and databases. The library has a Digital Library section having e-resources including NPTEL video lectures, e-books, e-journals etc. The Institution is constantly updating the library resources to meet the academic standards.

The Institution has an IT policy to promote e-learning and to access digital resources by the students. Adequate ICT facilities and other digital resources are available for the students and faculty. The College also encourages online learning. The students are encouraged to participate in webinars and other online programmes through ICT facilities available in the College. The College has deployed ICT facilities for almost all activities.

To encourage sports, the College has a well-developed playground with 8-lane tracks, football fields, hockey field, cricket ground, handball court, and basketball courts. The College also has indoor game facilities. The Students can exhibit their artistic talents in the fields of music, dance, drama, visual arts, and other cultural pursuits though the infrastructure facilities available for the purpose.

The College infrastructure facilities like building, electrical installations, IT infrastructure are maintained regularly through the Maintenance Section available in the College. The academic support facilities like Laboratories, Library and Computers are maintained by the staff members of the respective departments. The learning ambience of the College is properly maintained by the effective maintenance mechanism of the College.

Student Support and Progression

The College provides an excellent learning environment and supports holistic development and progression. The Institution provides facilities for all the eligible students to receive Government financial assistance, which includes PMSS (Post Matric Scholarship Scheme) for SC/ST students, BC-MBC Scholarship, Minority Scholarship, First Generation Graduate Scholarship etc. The Management also offers fee concessions and Merit Scholarship to the deserving students. The Management also provides special fee concessions for the Girl students to promote the enrolment of the Girl students. The College has various types of student-centric committees like Anti-ragging Committee, Internal Complaints Committee (Prevention of Sexual Harassment), Class Committee, Student Welfare Committee to address the grievances of the students. Parents-Teachers Meetings are also held to update the parents on the progress of their wards.

The College has an effective teaching learning process to ensure the progression of all students. An active Training and Placement cell ensures that adequate training is provided for the employability of the students. It provides effective training to improve the Soft skills, the Communication skills, Programming skills and Special trainings to enhance mathematical Aptitude. The College offers career guidance support for further higher studies, employment opportunities in Government as well as public sectors and motivates them to write

the competitive examinations.

The College encourages students to participate in various sports & games, cultural programmes and competitions. The students actively participate in various Zonal / State / National level tournaments bringing laurels to the College. The Institution inculcates social responsibility and responsible citizenry among the students by encouraging them to participate in various kinds of activities related to social issues. The College takes keen effort for the holistic development of the students by making them to participate in these activities.

The College has a vibrant Alumni Association and it has chapters in various cities and Alumni Association meetings are held regularly. The alumni participate in college activities by providing useful suggestions as members of various committee such as IQAC, BoS, Department Advisory Board, etc. The alumni contribute to the College by delivering Guest lectures and providing placement guidance to the students.

Governance, Leadership and Management

The College focuses on Vision, Mission, and Quality Policy to promote excellence in technical education. In order to achieve the Vision and Mission of the College, it has an effective academic and administrative planning and implementation through participative decision making process. The Principal makes decisions regarding the academic, administrative, and research and development activities of the Institution based on the Governing Council's suggestions. All major decisions are made in a participatory manner at the meeting of the Department Heads. The interaction with stakeholders on a regular basis ensures continuous improvement. Resolutions and decisions made by various bodies are properly recorded and actions are taken accordingly.

The College formulates strategic plan in alignment with the Vision and the Mission of the College. The implementation of the strategic plan is monitored to improve the quality of academic and administrative processes. The IQAC Cell formulates the strategic plan policy in consultation with the various stake holders and monitors the successful implementation of the planning.

The College has a proper recruitment policy and the recruited faculty members undergo Faculty Induction Programme. The faculty members are also encouraged to participate in various kinds of Professional Development Programmes to improve their competency. The College has a beneficial welfare scheme to all teaching and non-teaching staff in order to raise their morale and inspire them to work effectively. The College has a systematic process for the performance appraisal system for teaching staff, which is carried out on a regular basis.

The College has an effective procedure for planning and allocation of the financial resources. The College allocates budget to each department based on the budget proposals presented by the departments. Regular audits are conducted to check budget planning and utilization of the financial resources.

The Internal Quality Assurance Cell (IQAC) helps the College to maintain quality and to promote continuous improvement of quality for achieving academic excellence. Regular academic and administrative audits are conducted to ensure quality of all processes. Suitable corrective actions are taken based on the audit report. IQAC Cell conducts regular meeting for quality development and monitors the quality assurance practices.

Institutional Values and Best Practices

The College realizes its social responsibilities and its role in organizing various kinds of programmes to inculcate the values among the students. The College makes effort to address the important issues like environmental consciousness and sustainability, gender equity, professional ethics and inclusiveness through various club activities and programmes.

The Institution takes necessary measures to promote sustainable environment in the College through various environmental friendly practices like rain water harvesting, energy conservation measures, waste water recycling, green environment, etc. Efforts for carbon neutrality are taken by prohibiting the movement of vehicles inside the campus, prohibiting smoking and ensuring a Plastic and Tobacco-free campus. Expert teams conduct Green Audits, Energy Audits, and Environment Audits regularly.

The College has facilities for the differently abled persons and to promote Divyangjan friendliness, the institute provides a barrier-free environment with ramps, restrooms, lifts, wheel chairs, display boards, and assistive technologies.

In order to promote patriotism and social concern, the Institution commemorates national festivals as well as the birth anniversaries of great Indian personalities.

The following two practices have been evolved as the best practices over the time.

1. Nurturing Social Responsibility through Club Activities.
2. Promoting Online Learning and Industry Designed Courses for Knowledge and Skill Development

The College realizes its responsibilities to nurture and mould the students into responsible citizens having social responsibilities with values such as teamwork, commitment and courtesy. In order to promote these values, several programmes and activities are conducted through various clubs for the students.

The College promotes online learning for the students due to the explosion of knowledge through internet. The students are encouraged to participate in online courses with credit transfer facility. For this purpose, the College has included industry designed courses with the help of the experts from the industry.

One of the distinct attributes of the Institution is: **Inculcating Innovation and Entrepreneurial Culture among the Students**. The College conducts regular programmes to promote innovation and entrepreneurship development. The College has effective Institute Innovation Council and Entrepreneurship Development Cell which conducts various programmes for the entrepreneurship development and for the promotion of innovative culture.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	SETHU INSTITUTE OF TECHNOLOGY
Address	Sethu Institute of Technology, Pulloor - 626115, Kariapatti Taluk, Virudhunagar District.
City	Virudhunagar
State	Tamil Nadu
Pin	626115
Website	www.sethu.ac.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	A. Senthil Kumar	04566-229705	9443564850	04566-229706	principal@sethu.ac.in
IQAC / CIQA coordinator	A. Merline	04566-229700	9976885282	-	merline@sethu.ac.in

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details	
Date of Establishment, Prior to the Grant of 'Autonomy'	23-08-1995

Date of grant of 'Autonomy' to the College by UGC		17-08-2012		
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	19-10-2010	View Document		
12B of UGC	17-12-2014	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	03-07-2022	12	Approval obtained every year

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	Sethu Institute of Technology, Pulloor - 626115, Kariapatti Taluk, Virudhunagar District.	Rural	132	49659

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,Computer Science And Engineering	48	HSC	English	180	186
UG	BE,Electronics And Communication Engineering	48	HSC	English	180	184
UG	BE,Mechanical Engineering	48	HSC	English	120	84
UG	BE,Electrical And Electronics Engineering	48	HSC	English	120	125
UG	BTech,Information Technology	48	HSC	English	120	120
UG	BE,Civil Engineering	48	HSC	English	60	40
UG	BTech,Agricultural Engineering	48	HSC	English	60	37
UG	BE,Biomedical Engineering	48	HSC	English	60	53
UG	BTech,Computer Science And Business Systems	48	HSC	English	60	57
UG	BTech,Biotechnology	48	HSC	English	60	44

UG	BTech,Artificial Intelligence And Data Science	48	HSC	English	60	60
UG	BE,Computer Science And Design	48	HSC	English	60	55
UG	BE,Computer Science And Engineering Artificial Intelligence And Machine Learning	48	HSC	English	60	57
PG	ME,Computer Science And Engineering	24	B.E.	English	18	15
PG	ME,Electronics And Communication Engineering	24	B.E.	English	18	15
PG	ME,Mechanical Engineering	24	B.E.	English	18	18
PG	ME,Electrical And Electronics Engineering	24	B.E.	English	18	6
PG	ME,Civil Engineering	24	B.E.	English	18	18

Position Details of Faculty & Staff in the College

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	0				0				0			
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit	0				0				0			
Sanctioned by the Management/Society or Other Authorized Bodies	28				23				177			
Recruited	16	12	0	28	11	12	0	23	113	64	0	177
Yet to Recruit	0				0				0			

Non-Teaching Staff						
	Male		Female		Others	Total
Sanctioned by the UGC /University State Government						0
Recruited	0		0		0	0
Yet to Recruit						0
Sanctioned by the Management/Society or Other Authorized Bodies						173
Recruited	112		61		0	173
Yet to Recruit						0

Technical Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				77
Recruited	56	21	0	77
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	16	12	0	8	12	0	28	11	0	87
M.Phil.	0	0	0	0	0	0	11	9	0	20
PG	0	0	0	3	0	0	74	44	0	121
UG	0	0	0	0	0	0	0	0	0	0

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	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

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

Details of Visting/Guest Faculties					
Number of Visiting/Guest Faculty engaged with the college?	Male		Female		Total
	0	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	3175	8	0	0	3183
	Female	955	3	1	0	959
	Others	0	0	0	0	0
PG	Male	104	0	0	0	104
	Female	55	0	0	0	55
	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	43	53	76	65
	Female	17	22	28	30
	Others	0	0	0	0
ST	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
OBC	Male	628	623	709	627
	Female	259	220	229	212
	Others	0	0	0	0
General	Male	13	13	9	10
	Female	10	3	5	4
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		970	934	1056	948

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Agricultural Engineering	View Document
Artificial Intelligence And Data Science	View Document
Biomedical Engineering	View Document
Biotechnology	View Document
Civil Engineering	View Document
Computer Science And Business Systems	View Document
Computer Science And Design	View Document
Computer Science And Engineering	View Document
Computer Science And Engineering Artificial Intelligence And Machine Learning	View Document
Electrical And Electronics Engineering	View Document
Electronics And Communication Engineering	View Document
Information Technology	View Document
Mechanical Engineering	View Document

Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	<p>The College always aims at providing holistic education which is very well reflected in its one of the Mission statements as "to provide holistic learning ambience". The various programs of the College offer courses in humanities, social sciences, professional and soft skills in addition to the technical courses. Some of the non technical courses that are offered are English for Technical Communication, Communication Skills for Professionals, Environmental Science, Biology for Engineers, Gender equality, Tamil Literature, Culture and Civilization through Archeology, Indian Constitution, Professional Ethics and Human Values, Soft Skills Lab and Interpersonal Skills Lab. Foreign language courses such as German, French and Japanese are also offered. These courses will be helpful in developing the students as well-rounded individuals. All the Departments are requested to explore many such courses that could be offered to help the students develop the 21st century skills.</p>
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Faculty members and students are encouraged to do research on some of the societal problems. The College has been adopting flexible curriculum since 2015 and all the courses offered by the programs are credit based courses. The projects are carried out by the students which offer solutions to the industry and the society. The curriculum of the programs has a unique course namely Multidisciplinary Project, in which students from various disciplines join together and carry out projects. These projects provide useful solutions to the industrial and societal problems. Some of the multidisciplinary projects have been awarded in various contests. These multidisciplinary projects provide interdisciplinary knowledge and skills required for the industry. In addition to this, multidisciplinary/interdisciplinary courses are also available for the students. The college promotes multidisciplinary research among the faculty members. The core branches are combining with IT branches to carry out multidisciplinary research in the latest emerging areas.

2. Academic bank of credits (ABC):

Our Institution is registered under Academic Bank of Credits. The College is aiming to promote flexible student centric learning by depositing credits earned by the students in Academic Bank of Credits. This will facilitate transfer of credits acquired by the students from Indian/Foreign Universities having equal or higher Accreditation grades for the award of the degree. Our College is taking efforts to enroll international students to promote diversity and internationalization (globalization). For this purpose, the College has signed MoU with foreign universities. The College is taking serious efforts to establish research/teaching collaborations and faculty/student exchange with high quality foreign institutions. In order to get international employment and studies, global competencies have been fostered among students. In order to support the above fact, foreign languages like German, Japanese and French are being included in the curriculum. The College is also conducting awareness programs and trainings for TOEFL, IELTS, GRE, etc. to secure employment in foreign countries. The faculty members are encouraged to design their courses and they are approved by the Board of Studies and Academic Council, after careful review. The regulation itself provides flexibility to choose appropriate pedagogical

techniques by the faculty members. Innovative pedagogical methods are encouraged to enhance the knowledge and skills of the students. The faculty members also have flexibility to design their assessment which are useful to apply the concepts of the courses for effective solutions of the societal problems. The flexible academic regulation of the College offers opportunities for the faculty members to design their courses, pedagogical methods and assessment methods is considered to be one of the good practices followed by the College.

3. Skill development:

The college realizes its responsibility to provide the knowledge and skills required for their career and higher education for the students. For skill development there are various courses available in the curriculum namely Soft Skills Laboratory, Interpersonal skills laboratory, Skill development, Personality and Social Development, Speak Better Write Better, etc. The students are encouraged to undergo various types of vocational skill development courses leading to a valid certificate by reputed organization which are in alignment with the National Skills Qualification Framework. The students are provided credits for such vocational skill development courses to promote skill development among the students. In addition to the above courses the college encourages various activities to promote communication skills through clubs like Toastmasters club and Yacker Club. The Departments are conducting various skill development programs relevant to their discipline. The Department associations conduct technical competitions to promote technical skills among the students. The College also conducts value added courses which imparts the necessary skills for their career development. The College promotes value based education through curriculum and various activities. The curriculum has Value Education and Human Rights, Gender Equity, Professional Ethics and Indian Constitution which promote values among the students. Programs like Zumba dance, boxing and musical instruments are conducted for the benefit of the students which help the students for life skills development. The college conducts various programs like women safety, women rights, women health and women entrepreneurship for the girl students through Women Empowerment Cell to face the challenges of

	<p>life. The curriculum structure helps the students to take vocational courses before graduating and the credits earned by them are transferred after due assessment. The experts from the Industry are invited to the College to provide skill development programs to overcome the gaps between academia and industry. The college has chalked out strategic plans to promote blended learning ODL learning and on-campus learning for the students as well as for the society. The University encourages the colleges to undergo skill development courses with certification through a unified platform namely, Naan Mudhalvan Scheme by the Government of Tamilnadu. The college has an effective plan to offer skilling courses through online and distance mode.</p>
<p>4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):</p>	<p>India being a diverse country it is important to preserve the culture and language. Professional students don't get opportunity to learn regional languages once they enter college life as the requirement of these languages is not mandatory in the work environment of an engineering graduates. As per NEP 2020 guidelines in order to preserve the language and culture our institution decided to include the course Literature, Culture and Civilization of Ancient Tamil. The college integrates the knowledge system of the Tamil language and the rich cultural heritage available among the ancient Tamil with the curriculum. As the geographic location of our institution is in rural area, the students from rural background enroll. To support these students, classes are conducted in bilingual (i.e., English and mother tongue) mode. "Muthamizh Kalai Mandram"-A Club for three branches of Tamil literature, music & poetry and drama, is available in our institution to promote the aspects of Tamil culture and tradition. In this club various events will be conducted to promote literary ability, poem reciting, singing in Tamil language, drama and oration. This club helps the students to develop their knowledge and skills in their mother tongue. The college has planned to conduct few programs in Tamil language also as per NEP 2020 guidelines.</p>
<p>5. Focus on Outcome based education (OBE):</p>	<p>The college follows OBE approach which is a continuous process of education wherein the curriculum, teaching and learning strategies, and assessment tools are improved continuously. The College adapts OBE learning process in four steps. a)</p>

Plan (Syllabus Writing/Review)–The Course Learning Outcomes are aligned with the ELGA, PEO and Student Outcomes. The syllabi reflect strategies (learning plan) for achieving the outcomes, as well as for measuring the outcomes assessment) b) Implement (Course Delivery)–Carry out the learning plan and strategies planned for producing the outcomes c) Measure / Assess (Assessment) -Carry out the strategies planned for measuring the learning outcomes and objectives. Collect the data and analyze it to determine the results. (Assessment Phase). This phase is where feedback is obtained. d) Respond / Improve (Continuous Quality Improvement) –The college determines the needs to be changed to make improvements. These changes are the basis of new or revised outcomes and objectives for the next cycle of the process. The statements of learning are framed at the Institute level in the form of Institutional Vision and Mission. The Department level Vision and Mission statements are derived from the Institutional Vision and Mission statements. At the programme level Programme Educational Objectives and Programme Outcomes and Course Outcomes are framed. The Program Educational Objectives, Program Outcomes and Course Outcomes are related to the skills, knowledge and behaviors that students should acquire as they progress through the program. The faculty members are motivated to design curricula, teaching methodology, assessment pattern such that the higher order cognitive skills and abilities are mapped to the Program Outcomes and Course Outcomes. For better attainment of outcomes, various innovative teaching methodologies are used. These outcomes are measured by the attainment of knowledge and skills acquired by the students during the course/program. The College/Program analyzes the attainment and makes suitable corrective action for improvement. This process is cyclically followed to enhance the quality of the institution and the program. The IQAC cell of the college monitors the implementation of OBE process in the college.

6. Distance education/online education:

The institution has excellent infrastructure facility to offer online and distance education with 1Gbps internet connectivity. In the COVID-19 pandemic situation, the institution provided virtual learning to the students. ZOOM, Google Classroom, Microsoft Teams, Google Meet are used to connect the students

for online learning. Even after Pandemic situation the college follows blended learning which enhances the learning ability of the students. The faculty members are encouraged to prepare online materials like video, quiz, assessment etc., in order to encourage hyflex / independent learning. The faculty members are trained to take classes in hybrid mode of education. The whole campus is WI-FI enabled and all classrooms support hybrid learning. The college provides e-governance through ERP software, Flair throughout the campus including teaching learning process. The library material can be accessed online through an exclusive webpage developed by the library. The college facilitates online learning through MOOC, SWAYAM and other online learning platforms as per NEP 2020 guidelines. The college is fully equipped with the implementation of online and distance learning methods as per NEP 2020 guidelines.

Institutional Initiatives for Electoral Literacy

1. Whether Electoral Literacy Club (ELC) has been set up in the College?	Yes, the College has an effective Electoral Literacy Club since the academic year 2018-2019
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 college has an ELC Coordinator to guide the students in ELC related activities. The Electoral Literacy Club has Principal as the Chairperson and Mr.SVK. Muthukumar, AP/CSE as the coordinator. The ELC has 15 student representatives and they used to participate in various activities like Voter's Awareness Rally, Awareness Programs and other classroom activities.
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.	The college used to participate in the voter's awareness contests conducted by Election Commission of India. Our students won prizes and awards in the voters awareness contests conducted by District Collectorate. Selvi.S.Jeyadharani, II Civil won first prize in the poster making event conducted by Election Commission of India and the student received her prize from the District Collector in the academic year 2021-2022. The students also participated in the cultural competition organized by the Election Commission of India for National Voters Day. The students also assist district election

	administration in conduct of poll during election process.
4. Any socially relevant projects/initiatives taken by College in electoral related issues especially research projects, surveys, awareness drives, creating content, publications highlighting their contribution to advancing democratic values and participation in electoral processes, etc.	The college conducted awareness drives, displayed placards in public places and participated in electoral processes.
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.	The college organizes camps through ELC for the students to enrol themselves as voters and the students are provided with voters ID card (EPIC) every year.

Extended Profile

1 Program

1.1

Number of programs offered year-wise for last five years

2021-22	2020-21	2019-20	2018-19	2017-18
18	16	14	14	14
File Description		Document		
Institutional data in prescribed format		View Document		

1.2

Number of departments offering academic programmes

Response: 13

2 Students

2.1

Number of students year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
4301	4225	4441	4489	4697
File Description		Document		
Institutional data in prescribed format		View Document		

2.2

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

2021-22	2020-21	2019-20	2018-19	2017-18
1093	1104	1208	1224	1229
File Description		Document		
Institutional data in prescribed format		View Document		

2.3

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

2021-22	2020-21	2019-20	2018-19	2017-18
4222	4082	4238	4273	4543
File Description		Document		
Institutional data in prescribed format		View Document		

2.4

Number of revaluation applications year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
36	0	19	61	95

3 Teachers

3.1

Number of courses in all programs year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
665	590	535	515	492
File Description		Document		
Institutional data in prescribed format		View Document		

3.2

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

2021-22	2020-21	2019-20	2018-19	2017-18
228	267	314	299	290
File Description		Document		
Institutional data in prescribed format		View Document		

3.3

Number of sanctioned posts year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
228	267	314	299	290
File Description		Document		
Institutional data in prescribed format		View Document		

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

2021-22	2020-21	2019-20	2018-19	2017-18
1195	1167	1415	1169	1309
File Description		Document		
Institutional data in prescribed format		View Document		

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

2021-22	2020-21	2019-20	2018-19	2017-18
890	890	807	849	849
File Description		Document		
Institutional data in prescribed format		View Document		

4.3**Total number of classrooms and seminar halls****Response: 85****4.4****Total number of computers in the campus for academic purpose****Response: 1142**

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

2021-22	2020-21	2019-20	2018-19	2017-18
1248.39	2256.99	2534.19	2793.71	3503.41

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curriculum Design and Development

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

Response:

The Curricula of the Programs are developed to achieve the Vision & the Mission of the Institute and the Program Educational Objectives (PEOs). The Curriculum of each Program is properly aligned with the learning outcomes including Program Outcomes, Program Specific Outcomes and Course Outcomes. While designing the curriculum, the Technology Forecast, Statutory Body Guidelines, Parent University curriculum, and very importantly Stakeholders' feedback are considered. These inputs provide the framework to analyze the relevance of the curriculum to the local, regional, national, and global developmental needs with learning objectives.

The relevance of the curriculum to various developmental needs is analyzed by the Program Assessment Committee (PAC), which plays a vital role in the design of the curriculum of the Program. The Technology forecast, International stakeholders' feedback, and feedback of the Employer and the Industry give insights on global and national developmental needs. The guidelines of Statutory Bodies like AICTE and UGC and the norms of Accreditation bodies help us to identify the National Developmental needs. The feedback obtained from the faculty, and students through interactions with local industries and society help to identify the local and regional developmental needs. Based on the importance and necessity, the courses which are related to these developmental needs are identified by the Program Assessment Committee. The draft curriculum is designed in the Departmental faculty meeting with the consideration of Curriculum Planning and Evaluation Cell (CPEC) discussions. The Program Articulation Matrix which maps the courses with Program Outcomes and Program Specific Outcomes are developed and further curriculum gaps are identified and the Curriculum is refined in the Program Assessment Committee meeting. The Course Articulation Matrix is also formed and the gaps in the syllabi of the courses are identified and relevant topics are included in order to effectively attain the learning outcomes of the courses. The Department Advisory Board (DAB) reviews the Curriculum and ensures that the feedback is incorporated properly to address the local, regional, national and global developmental needs with Program Outcomes (POs), Program Specific Outcomes (PSOs) and Course Outcomes. The Board of Studies has industrial and academic experts and their suggestions are incorporated to refine the draft curriculum and syllabus. The Academic Council then reviews the curriculum and syllabi of various programs and approves the same.

The Institute introduced the Choice based Credit System (CBCS) under Regulations 2015 and the same has been followed under Regulations 2019 also. The CBCS facilitates the experience of Interdisciplinary courses, Multi-Disciplinary courses, Open Electives that are Electives from other programs, Internships, Massive Open Online Courses, Self-learning Electives, Certification Programs, Skill Development courses, and Personality Development courses. The students can choose their own courses through Choice based Credit System to acquire knowledge and skills required for local, regional, national, and global developmental needs which are further helpful for employment. The mandatory courses like Personality and Social Development and Skills Development Courses help the students engage in various activities

which inculcates the values and traits and develop skills required for the local, regional, national, and global development needs.

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

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

Response: 100

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

Response: 18

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

Response: 18

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

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

Response: 66.69

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

2021-22	2020-21	2019-20	2018-19	2017-18
383	344	393	381	345

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

1.2 Academic Flexibility

<p>1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years.</p> <p>Response: 42.11</p>	
<p>1.2.1.1 How many new courses are introduced within the last five years</p> <p>Response: 280</p>	
<p>1.2.1.2 Number of courses offered by the institution across all programmes during the last five years.</p> <p>Response: 665</p>	
File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for Additional Information	View Document
<p>1.2.2 Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course system has been implemented (Data for the latest completed academic year).</p> <p>Response: 100</p>	
<p>1.2.2.1 Number of Programmes in which CBCS / Elective course system implemented.</p> <p>Response: 18</p>	

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

1.3 Curriculum Enrichment

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

Response:

The Institute makes conscious efforts to integrate cross-cutting issues like Gender, Environment and Sustainability, Human Values, and Professional Ethics into the Curriculum. In this regard, the Curriculum of the various programs offers courses relevant to Gender, Environment and Sustainability, Human Values, and Professional Ethics issues. The course on Gender Equality is offered as a mandatory course to all UG programs and it is introduced with the aim of building an engineering society in which Men and Women will have equal opportunities, responsibilities, and rights in the workplace. The gender issues faced by the womenfolk, respecting women and women's rights are discussed through the Gender Equality course and awareness is created among male and female students. The College creates awareness of environmental issues and the Environmental Science course is offered as a mandatory course to all UG students. It helps the students to understand the environmental issues and encourages them to find the solution to protect the environment and its sustainability. These courses integrate transferable life skills for sustainable development into the curriculum. The College is keen to inculcate professional ethics and human values among the students. The College offers Professional Ethics and Value Education and Human Rights as mandatory courses in all UG programs to inculcate ethics and human values. The soft skills course is also offered to the students which imparts life skills to the students.

Besides the mentioned specific courses, the students are asked to address these cross-cutting issues in their project work, encouraged to offer solutions with a consciousness of these issues, and motivated to use their innovative ideas with imaginative and logical thinking in solving the issues. Students participate in the field visits and they are exposed to the environmental issues related to their discipline. Field projects and Internships are useful to the students to understand the issues relevant to Professional Ethics.

The Institution encourages the students to take part in various clubs through which they learn human values. The activity point is awarded to the students to participate in such activities. Various environmental awareness programs are organized by the ECO club and Rotaract club to create environmental awareness among the students. The seed ball program and paper cup preparation are organized by the ECO club. The plastic-free Environment Rally is organized by the Institute in association with Rotaract Club. The Women Empowerment Cell is effectively functioning in the Institution to empower women in their studies, career and life. The programs such as Cyber Crime against women, Social Justice, and Breast Cancer awareness programs are conducted by the Women Empowerment Cell and women faculty and students are provided

awareness on gender issues. The students visit orphanages and Old Age Homes through NSS and Rotaract Club and they learn human values. The College is actively involved in the Unnat Bharat Abhiyan (UBA) program and these cross-cutting issues are addressed through the UBA program. The College conducts various programs and activities to create awareness of these cross-cutting issues through Department Associations and various Clubs of the College.

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

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

Response: 104

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

2021-22	2020-21	2019-20	2018-19	2017-18
21	20	21	23	19

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

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

Response: 46.79

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

2021-22	2020-21	2019-20	2018-19	2017-18
1833	1898	2273	2146	2227

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

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

Response: 52.69

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

Response: 2266

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

1.4 Feedback System

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

Response: A. All 4 of the above

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

1.4.2 The feedback system of the Institution comprises of the following :**Response:** A. Feedback collected, analysed and action taken and report made available on website

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

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Average Enrolment percentage (Average of last five years)

Response: 79.46

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

2021-22	2020-21	2019-20	2018-19	2017-18
970	934	1056	948	1013

2.1.1.2 Number of sanctioned seats year wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
1290	1290	1170	1230	1230

File Description

Document

Institutional data in prescribed format (Data Template)

[View Document](#)

Any additional information

[View Document](#)

Link for Additional Information

[View Document](#)

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

Response: 78.71

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

2021-22	2020-21	2019-20	2018-19	2017-18
702	667	677	673	650

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

2.2 Catering to Student Diversity

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

Response:

The students enter into the College with different levels of learning as they have studied in various school education streams and the students with various backgrounds like first graduation students, socially and economically weaker students and rural students join the college. Their educational background and social and economic background lead to the varied levels of learning in the subjects. In order to improve their learning levels motivational programs, Induction Program, bridge courses, and life skill programs are conducted.

- Motivational programs are conducted at the entry level and at regular period to build confidence and develop motivation among students
- Before the commencement of regular classes, “Induction Program” is conducted
- Bridge courses are conducted to fill up the learning gaps at the entry level.
- Life Skill Programs are organised to help an individual to be successful in living a productive and satisfying life

Assessing learning levels:

The performance of the students in Continuous Internal Examination (CIE) and Semester End Examination (SEE) is taken as the major input in identifying the students as advanced learners, average learners and slow learners. The learning levels are also assessed through their participation in regular theory and practical classes, participation in co-curricular activities, participation in innovative project contests etc. Advanced learners are independent learners and they can learn without the help of faculty members. Average learners learn with the help of faculty members and in course of time they also become proficient as advanced learners. Slow learners need special programs, special learning methods and encouragement to succeed in their education.

Advanced Learners:

As the advanced learners are independent learners, they are encouraged to participate in various technical contests, learn through self-learning online platforms and equip themselves for their prospects.

The advanced learners are encouraged through the following initiatives:

- To participate in more number of paper presentations, symposiums, conferences, mini-project exhibitions, Innovative Project Contest and My Innovative Business Plan competition
- Preference is given to them to participate in programs like Infosys Campus Connect, internship, innovation contests, R&D and consultancy activities
- Through Career Guidance guest lectures, the students are motivated to appear for competitive exams like GATE and GRE
- The students can borrow more books from the Library.
- Self-learning courses facilitated with digital library resources like Swayam and MOOC courses
- Extra credit courses are offered to enable the students to earn extra credits besides their regular credits in UG programmes. Massive Open Online Courses offered by SWAYAM, NPTEL, etc. are also recognised as extra credit courses

Slow Learners:

The slow learners are counselled by the mentors and special learning methodologies are adopted to enhance their learning capabilities. The following special measures are taken for slow learning students:

- Slow learners are counselled by the mentor, and the Head of the Department periodically
- Special Remedial classes are organized for slow learners where the students can interact comfortably with the faculty to clarify their doubts
- Question Bank Tutorial Questions are provided
- Course material are provided to the slow learners for easy learning
- Additional Assessment tests are conducted to improve their performance

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

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

Response: 19:1

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

2.3 Teaching- Learning Process

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

Response:

Student-centric learning is characterized by innovative teaching methods in which students are the active participants. It aims at fostering transferable skills such as problem-solving, critical thinking and reflective thinking through communication with teachers and fellow students. The following student-centric learning approaches are followed.

Experiential Learning

It is an engaging learning process whereby students “learn by doing” and by reflecting on the experience to develop their knowledge, skills and values from direct experience.

- Lab Demonstration
- Field work / Industrial visit
- Inplant training
- Extension Activity
- Association Activities

Participative Learning

By taking part in the development and execution the students have more influence over their own learning. It offers possibilities for students to acquire professional values, knowledge, and skills. Students are engaged to take part in the many learning opportunities the college offers.

- Group Assignments
- Flipped Classroom
- Think Pair Share
- Seminars/ workshops
- Group discussions

Problem Solving Methodologies

As engineering and technology students they encounter several problems related to their fields and they should have appropriate knowledge and skills to solve such problems. In order to provide problem solving skills the course teachers are asked to design suitable problems of the society and the students are trained to solve such problems. In addition to this the students solve real life problems through project work, Mini project and generate innovative ideas. The following are the courses in which the students are trained to

use various problem solving methodologies.

- Courses which have engineering problem
 - Examples: Engineering Mechanics, Circuit Theory, Signal Processing etc.
- Project work
- Mini Project
- Innovation Activities

The College gives high importance to holistic development of students beyond the classroom through co-curricular, extra-curricular and field based activities. In order to enhance the learning approach of the students, each department has their own association forum. This develops participating learning among the students.

To support personal and professional development of students, Skill development and Sports and Social Development courses are offered. Guest lectures, Technical Symposium, seminars, conferences, industry visits and many such activities are organized to enhance students' learning experience. All course curricula, Lesson plan, time table, reading material etc. are uploaded through Content Management System such as Google class room and Edmodo. This enhances the online learning experience of the students.

In addition to the above, the students participate in various national level technical contests hosted by MNCs such as Texas Instruments Innovation Challenge -India, TCS Code Vita, TECHGIUM, Accenture, etc. The students also participate in various international level design contests such as International GO Kart Championship smart India Hackathon etc. The students gain experiential learning problem solving skills and participative learning by participating such national level competitions.

The College strives hard to provide quality learning experience to all students by providing opportunities for the students training them to acquire necessary skills and encouraging them for peer learning and group projects. The faculty members are also motivated to provide excellent learning experience to the students.

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

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

Response:

The Institution encourages the faculty members to employ ICT technologies for effective teaching.

- ICT enabled classrooms facilitated with LCD projectors and Internet access are established in each department to supplement the conventional black board teaching method
- The College provides high-speed internet connectivity to the students for quick access to educational resources

- The College has a digital library and it serves as a supplementary learning resource containing e-journal packages and e-books which allow the students and faculty members to update their knowledge.
- NPTEL and MIT open courseware are made available to the students.
- Video lectures are employed in teaching to enhance the understanding for the students and for effective teaching.
- Students are encouraged to enroll in various online courses under MOOC.
- Virtual learning environment is initiated with Content Management Systems.
- Virtual lab facilities are used to augment the knowledge of the students.
- Students can earn extra credits through Massive Open Online Courses offered by SWAYAM, NPTEL, etc.
- Innovative teaching methodologies using ICT tools are followed by the faculty members to ensure the attainment of learning objectives.
- The faculty members regularly use ICT tools for conducting Quiz using various platforms like Class Marker, Kahoot, Testmoz, Quilgo etc.

Because of the pandemic, all teaching fraternity adopted online learning environment instead of physical classroom teaching. During pandemic period the College used online lectures delivered through Google Meet, Microsoft Teams, Zoom and other platforms, which enable the college to successfully maintain and achieve the teaching-learning process. During the pandemic period even the internship programs, placement activities are conducted through virtual mode. The examinations were also conducted through online mode. ICT tools and online learning methodologies truly played a crucial role in connecting the staff and the students for effective teaching and learning. After the advent of the pandemic, the College fully adopts ICT tools, online teaching methodologies and blended learning to enhance the quality of teaching learning process.

Webinars, workshops and conferences are conducted using ICT technologies and the students participated in these programs.

The faculty members upload their lectures in the internet so that the students can refer at any time. The faculty members also upload the course materials in the internet for the benefit of the students.

Innovative teaching approaches:

- Innovative teaching methodologies using ICT tools are employed from the first year classes onwards.
- These techniques kindle the spirit of the students and invite their attention as they are quite different and interesting compared to conventional teaching
- The commonly practiced methods are
 - Webinars/Seminars
 - Online Quiz
 - Visualizations
 - Video Lectures
 - Flipped Classroom

Improvement in Learning

- Improvement is evident in the performance of the students in the examinations as the concepts are

clearly understood through ICT enabled teaching.

- These techniques improve the self-learning ability of the students and the attainment of higher order cognitive skills.
- Students exhibit their interest in participating in various online programs and technical contests which improve their technical know-how.

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

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

Response: 20:1

2.3.3.1 Number of mentors ?????????????????? ????????

Response: 210

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

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

Response:

The Academic Calendar is prepared by a Committee constituted by the Principal. The Committee consists of Vice Principal, Controller of Examinations and one Head of the Department. The Committee prepares Institute Academic calendar considering the norms provided by the statutory bodies and the University. The Academic Calendar consists of a detailed academic plan including the dates of commencement of classes, schedule of internal assessment tests, academic events, number of working days, last working days, commencement of End Semester Examinations, list of holidays etc. After the publication of Institute academic calendar each department prepares their respective Department Academic calendar which includes Events conducted by the departments, parents meeting, Association Meetings, Project Review

Meeting etc.

Time Table:

- The college strictly adheres to the Academic calendar and carries out academic activities and examinations as scheduled in the academic calendar.
- Before the commencement of the classes every Department takes care to prepare the course material, Teaching plan, Lab Manuals etc.
- The class time table is prepared by the committee constituted by the Principal and the Time table Coordinator coordinates with the departments, allots slots for common subjects and guides the committee to prepare department wise Time table. The Department timetable is prepared and circulated to the faculty members and students. The Time table is displayed in the department and class-room notice boards.
- The Departments also prepare individual time table for the Faculty members concern and distributed them for the effective handling of the classes.
- The Head of the Departments monitors whether the classes are handled by the faculty members as per the given time table.
- The faculty members should strictly adhere to the time table and make alternate arrangement in case of leave.
- For all theory courses the continuous internal assessment consists of tests, seminar/ assignment, Mini Project and Case Study. Internal assessment tests are conducted in each semester as scheduled in the Academic Calendar.

Teaching Plans:

- The preparation of Teaching plan begins at the departmental level after subject allocation by the Head of the Department. The courses are allotted to the faculty based on their competency and interest.
- The faculty members prepare the teaching plan which contains the schedule of topic-wise coverage details including mode of delivery. The Head of the Department approves the teaching plan.
- The Course teachers prepare Instructional System Design (Teaching Plan) for each course which contains the following:
 - Syllabus
 - Objectives
 - Course outcomes
 - Unit/Topic-wise coverage schedule
 - Modes of delivery
 - Content beyond syllabus
 - Innovative teaching methods to be employed
 - Concept mapping
 - Assessment Plan
- The Teaching plan is distributed to the students through Google Classroom
- The Faculty members record the syllabus coverage on daily basics in the log book
- The Syllabus covered by the Faculty members are periodically reviewed by the Head of the Departments.
- The Unit wise coverage and deviation in coverage of the courses are recorded in the log book by the faculty members.
- Syllabus completion is monitored and reviewed by the Head of the Department, the Dean and the

Principal.

File Description	Document
Upload Academic Calendar and Teaching plans for five years	View Document
Any additional information	View Document
Link for Additional Information	View Document

2.4 Teacher Profile and Quality

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

Response: 100

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

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

Response: 28.82

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

2021-22	2020-21	2019-20	2018-19	2017-18
87	95	92	64	57

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

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

Response: 7.28

2.4.3.1 Total experience of full-time teachers

Response: 1659.83

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

2.5 Evaluation Process and Reforms

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

Response: 16.4

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

2021-22	2020-21	2019-20	2018-19	2017-18
15	18.5	16	16	16.5

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

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

Response: 0.96

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

2021-22	2020-21	2019-20	2018-19	2017-18
36	0	19	61	95

File Description	Document
Number of complaints and total number of students appeared year wise	View Document
Any additional information	View Document
Link for Additional Information	View Document

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

Response:

The Controller of Examinations (CoE) office has adopted student centric and transparent practices for all the examination related activities. Continuous efforts are made to improve the examination procedures, IT integration in the examination management systems and continuous internal assessment system.

Examination Procedure

The College adopts Outcome Based Education (OBE) and the evaluation process is an important component of the OBE. The college takes all efforts to improve the quality of the evaluation process. OBE is a process in which an emphasis is placed on clearly articulated outcomes of what students are expected to know and be able to do. Hence the College emphasizes the quality of the Question papers. The Question papers are set by external experts and internal experts in accordance with the desired outcomes of the respective courses.

The question papers are scrutinized by the respective external and internal subject experts. The scrutinized question papers are selected randomly before the examination and printed for the issue to the examination halls. For the use of the students, all the question papers of the previous examinations are made available in the library.

Reform on Examination Procedure 1:

Periodically, the question papers of semester examinations are subjected to academic audit by experts from higher learning institutions in order to identify the scope for improvement in the standard of questions.

Reform on Examination Procedure 2:

Examination squads are constituted to ensure fair conduct of examinations and also to verify adherence to norms and rules to be followed.

Reform on Examination Procedure 3:

The semester examination answer scripts are first assigned with dummy numbers. The external and internal examiners are appointed for evaluation. The examiners who evaluate the answer scripts do not know the identity of the students due to dummy number system.

The result passing board verifies the results and approves it for publication. After the publication of the results, if the student feels that there is scope for additional marks, they can check and apply for reevaluation after getting photocopy of the answer scripts. If any student has any grievance regarding the examination process, the examination grievance committee is available to address it.

Every semester, after the publication of results the individual semester wise grade sheets are printed and issued to the students. Consolidated grade sheets are printed and issued to the students those who are passed in all prescribed courses given in the respective curriculum.

Examination Process including IT Integration

The examination process is efficiently integrated with the IT systems. The institution has dedicated software for academic and examination processes. Starting from the course registration to publication of results everything is carried out digitally for faster operation.

The following are the processes integrated with IT solutions:

- The course registration of students are carried out through the software. The students register their courses through the student portal.
- The class time tables are incorporated in the automation software by the respective faculties. The attendance of the students are posted in the software by the respective course handling faculty.
- The continuous internal assessments (CIA) marks also posted in the software.
- The students can pay the examination fees through the software.
- The examination schedule is published in the automation software and students can view the schedule using mobile application also. All schedules and important announcements are made using automated software so as to reach all stakeholders instantly.
- The appointment orders for setting question papers and scrutiny process to external examiners are communicated through E-mail. In the evaluation process, the appointment orders for the external and internal examiners are sent through E-mail.
- The semester examination answer scripts are assigned with dummy numbers which are generated by the software.
- After the evaluation the marks are entered in the software.
- The Continuous Internal Assessment marks are generated in the software after the entry of the marks for each internal component.

- The total marks earned by the students in the courses are generated in the software combining continuous internal assessment marks and end semester marks.
- The results and the analysis are completely processed by the software.
- The grades are automatically awarded by the software based on the marks scored by the students.
- Cumulative Grade Point Average (CGPA) is also automatically calculated by the software.
- When the publication of results are approved by the Controller of Examinations, the results are automatically uploaded in the student portal.
- The students can apply for reevaluation through software.
- The individual semester wise grade sheets and consolidated grade sheets are printed through software.
- Academic verification of the credentials of the passed out students is also processed through online.
- Any recruiter or the student can apply online to verify the genuineness of the degree and marks. Result of verification is also communicated to the applicant online.

Thus, the adoption of IT integration of the entire chain leads to significant advantages in the examination process and it helps the students and faculty for faster and effective evaluation system.

Continuous Internal Assessment System

The Continuous internal assessment evaluation of the students is an integral part of the teaching learning process. The students have been encouraged to study continuously for the improvement of their performance through continuous internal assessment. A continuous internal assessment system in semester system is spread through the duration of course and is done by the course teacher. Continuous Internal Assessment components are designed in such a way that the faculty can monitor the student learning & development and intervene wherever required. The faculty shares the outcome of each internal evaluation component with the students, soon after the evaluation, and guide the students for betterment. Continuous Internal Assessment System (CIA) is also one of the important component of the OBE system. Some of the outcomes of the course can be achieved through continuous internal assessment.

The question papers for Continuous internal assessment test prepared by the teaching faculty in the view of the students achieve the outcomes of the respective course. The continuous internal assessment marks entered in the software by the respective faculty and it is subsequently used for End Semester examination result processing.

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

2.6 Student Performance and Learning Outcomes

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

Response:

Programme Outcomes and Course Outcomes framed and stated by the Programmes:

Our Institution has been adopting Outcome Based Education (OBE), a student-centric learning paradigm that enables the faculty members to effectively deliver the course content and plan assessment in accordance with the outcomes. The OBE approach is a continuous process of education wherein the curriculum, teaching and learning strategies, and assessment tools are improved continuously. The learning outcomes are framed from the Institutional and Department Vision and Mission. Course Outcomes (COs), Programme Outcomes (POs), and Programme Specific Outcomes (PSOs) are framed based on the OBE principle.

POs are narrower statements that describe what students are expected to be able to do by the time of graduation. POs are aligned closely with Graduate Attributes. PSOs are statements that define the technical attributes that are specific to the Programme the graduates demonstrate by the time of graduation. COs are narrower statements that describe what students are expected to know, and be able to do at the end of each course. These relate to the skills, knowledge, and behaviour that students acquire through the course.

The POs are defined based on the Graduate Attributes provided by the International Engineering Alliance that an Engineering graduate should possess at the end of the Degree Program. Each Programme stipulates the POs that their graduates should possess at the end of their program. POs and COs are framed based on the previous year attainment, feedback and the knowledge and skills required for the students on three domains of learning such as Cognitive, Affective and Psychomotor. The college also follows respective taxonomies like Blooms Taxonomy for Cognitive and Affective domains and Simpson Taxonomy for Psychomotor domain.

Similarly, the PSOs which are technical in nature are also framed by the respective Programs. COs are also framed in accordance with the POs and PSOs and also considering the feedback of the stakeholders. Each Programme has twelve POs and 2 PSOs. Each course has six COs and the teaching learning process is carried out to attain the Outcomes. The POs, PSOs and COs are clearly stated and displayed in the departments.

Display of Programme Outcomes and Course Outcomes:

The following are the methods of display and communication to teachers, students and parents of the POs, PSOs and COs

- The POs, PSOs and COs are published in the website for disseminating the statements.
- The students are briefed about the POs, PSOs and COs at the beginning of the semester in the classes. For first year students the outcome statements are explained in the Induction Programme by the respective Head of the Departments.
- The statements are displayed in the HoD cabin, Department Notice board, Class rooms, laboratories common places of the College like the Corridors so that it is regularly seen by the faculty and students.
- The POs, PSOs and COs are published in all the academic publications of the Programme like the Curriculum and Syllabus book, Instructional System Design and Lab Manuals to disseminate the statements among the faculty members and students.

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

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

Response:

Course Outcome Attainment

Processes used for the Assessment of Attainment of Course Outcomes (COs)

- The Course Outcomes are mapped with the respective assessment tools like tests, assignment, seminar, Mini Project, lab exercise, case study and end semester exam questions.
- The evaluation of attainment of COs is done based on the performance of the students in the mapped assessments in the Continuous Internal Examinations (CIE) and the Semester End Examinations (SEE).
- The Course Committee evaluates the attainment of COs and prepares the report of CO attainment along with the suggestions for the improvement.
- The Program level CO attainment is analyzed by the Program Assessment Committee (PAC) and it reviews the suggestions that are already given for improving the attainment.
- The Program level analysis and suggestions are presented in the respective Department Advisory Board (DAB) and Board of Studies (BoS). The members of these forums also give further suggestions.
- The institute level review of CO attainment analysis is carried out by the Internal Quality Assurance Cell (IQAC). The level of attainment of COs are analyzed and IQAC provide further suggestions for improving the CO Attainment, based on the level of attainment.
- Suitable actions are initiated by the Programme coordinator based on the suggestions provided in the various forums for the improvement in the attainment of Course Outcomes.

Programme Outcome Attainment

Processes used for the Assessment of Attainment of Programme Outcomes (POs) and Program Specific Outcomes (PSOs)

- The Programme Outcomes and Program Specific Outcomes are carefully mapped with Course Outcomes. The Course Outcomes are mapped with the Semester End Examination Questions.
- The attainment of Program Outcomes has two components i) Direct Assessment and ii) Indirect Assessment
- The direct assessment of the POs & PSOs is based on the attainment of the respective mapped course outcomes.
- The indirect assessment of the Program Outcomes consists of the Feedback from the graduating students, the achievements in the student portfolio, feedback from the Employer and the

performance of the students in the competitive Exams.

- The assessment of attainment of POs & PSOs is carried out based on the performance of the students in the Direct Assessments and the Indirect Assessments.
- The Programme level attainment analysis of POs & PSOs is carried out by the Programme Assessment Committee and suggestions are provided for improving the attainment.
- The Programme level review of POs & PSOs attainment analysis is done by Department Advisory Board (DAB) and Board of Studies (BoS)
- The institute level review of POs & PSOs is carried out by the Internal Quality Assurance Cell (IQAC). The level of attainment of POs & PSOs are analyzed and IQAC provide further suggestions for improving POs & PSOs Attainments, based on the level of attainment.
- Suitable actions are initiated by each Programme coordinator based on the suggestions provided in the various forums for the improvement in the attainment of POs & PSOs.
- The college effectively follows Outcome Based Education by continuous review and analysis of the attainment of Outcomes.

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

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

Response: 96.8

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

Response: 1058

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

Response: 1093

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

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process**Response:** 3.83

File Description	Document
Upload database of all currently enrolled students	View Document
Upload any additional information	View Document
Link for any additional information	View Document

Criterion 3 - Research, Innovations and Extension

3.1 Promotion of Research and Facilities

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

Response:

Sethu Institute of Technology is committed to update research facilities frequently based on the requirements as the research and development is another dimension of the core academic activity. The Institute encourages faculty and students in research and helps them to carry out scientific research and innovative ideas in various areas to fulfill the vision of the institution. The Institute has a Research committee to monitor the research activities. Various research groups function in every department according to their specialization to promote research activities. The Institute is keen on encouraging interdisciplinary projects among faculty as well as students. The objectives of the R and D cell are:

- To promote research that is relevant to the nation and the region.
- To improve and support existing and evolving research strengths
- To promote multidisciplinary Research
- To provide a suitable enabling research environment and infrastructure.
- To apply qualitative as well as quantitative research techniques to enhance knowledge, capability of students and faculty in relatively unexposed areas.
- To establish research partnerships with Government, Industry and other Universities

The Institute provides facilities to carry out research work and latest equipment are purchased through research grants. The faculty members are encouraged with financial support for presenting papers in National and International Conferences. The faculty members are also encouraged to apply for research project/ seminar/conference/workshop proposals for various funding agencies. Urkund software is used to check the similarity before submitting the research proposals and papers to avoid plagiarism to the concerned journals/organizations. The Institution also provides seed money to the potential faculty members for carrying out their research related activities on requisition. The faculty members publishing papers in reputed journals are being appreciated. Collaborative research and consultancy activities are also encouraged through MoU.

The Institute has seven research centres recognized by Anna University, Chennai namely, Civil Engineering, Computer Science and Engineering, Electronics and Communication Engineering, Electrical and Electronics Engineering, Mechanical Engineering, Physics and Chemistry. Several scholars are currently pursuing Ph.D in various disciplines under recognized supervisors in our college.

Our faculty members are actively doing research in various thrust areas like Advanced Composite materials, Adaptive Kanban Systems, IC Engines, Image Processing, Data Mining, Network Security, 5G

Technology, Antenna Design, Green solar cell, Hybrid Vehicles, Solar energy Bio-medical Instrumentation, reactor materials, nano drugs, Bio Energy, Bio-fuels, Bio-polymer for fuel cells, Corrosion, waste water management and advanced pile foundation. The Institute has so far received Rs.560 Lakhs from various funding agencies for research and innovation

Institute Innovation Cell (SITIIC) has been established to systematically foster the culture of Innovation among the students. Its prime objective is to encourage, inspire and nurture young students by supporting them to work with new ideas and transform them into prototypes. The Institute conducts regular programs to nurture innovative culture among the faculty and students.

To achieve greater heights in Research and Innovation, various policies such as Research Promotion Policy and Start-up Innovation and IPR Policy are designed to promote research and maintain research ethics among the academic/research community.<https://sethu.ac.in/research-promotion-policy/>

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

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

Response: 2.19

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

2021-22	2020-21	2019-20	2018-19	2017-18
0.22	0.52	2.76	3	4.44

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

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

Response: 0.43

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

2021-22	2020-21	2019-20	2018-19	2017-18
1	1	1	2	1

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

3.2 Resource Mobilization for Research

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

Response: 287.75

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

2021-22	2020-21	2019-20	2018-19	2017-18
111.75	35.37	7.93	11.4	121.3

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

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

Response: 2

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

2021-22	2020-21	2019-20	2018-19	2017-18
11	4	3	2	8

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

3.2.3 Percentage of teachers recognised as research guides

Response: 14.04

3.2.3.1 Number of teachers recognized as research guides

Response: 32

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

3.2.4 Average percentage of departments having Research projects funded by government and non-government agencies during the last five years**Response:** 25.35**3.2.4.1 Number of departments having Research projects funded by government and non-government agencies during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
4	2	2	1	4

3.2.4.2 Number of departments offering academic programmes

2021-22	2020-21	2019-20	2018-19	2017-18
13	11	9	9	9

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

3.3 Innovation Ecosystem

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

Response:

Sethu Institute of Technology nurtures innovative culture among the students and faculty members by conducting various programmes and contests and maintains Innovation Ecosystem in the College. Sethu Institute of Technology has an Institution Innovation Council (IIC) in association with MHRD that was established in the year of 2018. The innovation council aims at conducting various design contests. The College motivates the faculty and students to participate in various national and international level contests and also to patent innovative ideas. IIC has received 4.5 Star ratings consistently for conducting various Innovative programs and Contests. The College has an effective Entrepreneurship Development Cell (EDC). IIC in association with EDC conducts various entrepreneurship programs and start-up plan sessions. Many innovative ideas provided by students and faculty have been effectively implemented as

useful projects/products.

The College motivates the students to participate in various National and International level contests like Smart India Hackathon (SIH), Texas Innovative contests, Aarambam contest, TNSI and EDII Contest. SIH, a nationwide initiative by AICTE, provides a platform for students to solve some of the pressing problems faced in daily lives; and thus inculcate a culture of innovation and a mindset of problem solving. In SIH 2019 our student team won first prize and in SIH 2022 the student teams won first prize in software edition and runner up award in hardware edition. Our student has also won an award in the India Innovation Challenge Program IIGP2.0 contest organized by DST and awarded with a project grant of Rs.11 Lakhs for the innovative project entitled ‘OsteoCheX’. Our students have also actively participated in the H-Social Creator Award Contest and were awarded with the project grant of Rs.15 Lakhs for their innovative project entitled, “Non Invasive Fetal Stress Monitoring Device” and “IOT Based Rotary Drum Composting System with Solar Technology”.

The College maintains an Innovation Ecosystem by providing ample laboratory facilities and equipment to carry out Innovative and Research projects. Recently our college has been sanctioned with 111.75 Lakhs for the Idea proposals under the incubation component of MSME Innovative Scheme (Incubation, Design & IPR) of MSME champion scheme. The College is also establishing an incubation center through the Department of Information Technology for motivating the students and faculty to incubate their products. An Agri-startup, SMJ Smart products pvt Ltd, is initiated and it has received a Grant-in-Aid of Rs.25 Lakhs under RKVY-RAFTAAR scheme.

The College also encourages students to carry out innovative societal projects. The college received a grant of Rs.One lakh from Unnat Bharat Abhiyan scheme for the project Grey Water Recycling Treatment for the benefit of the nearby rural areas. In 2019 & 2021 Regulation, Creative Thinking and Innovation project is included in the curriculum to motivate the students to do projects related to societal issues. In summary, the College effectively maintains the Innovation Ecosystem, by motivating the students and faculty to carry out innovative projects, to participate in State, National and International level Innovation Contests and facilitating to carry out innovative projects for socially related issues.

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

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

Response: 73

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

2021-22	2020-21	2019-20	2018-19	2017-18
28	15	16	9	5

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

3.4 Research Publications and Awards

<p>3.4.1 The Institution ensures implementation of its stated Code of Ethics for research through the following: 1. Inclusion of research ethics in the research methodology course work 2. Presence of Ethics committee 3. Plagiarism check through software 4. Research Advisory Committee</p> <p>Response: B. 3 of the above</p>	
File Description	Document
Any additional information	View Document
Link for additional information	View Document

<p>3.4.2 Number of Ph.D's registered per teacher (as per the data given w.r.t recognized Ph.D guides/ supervisors provided at 3.2.3 metric) during the last five years</p> <p>Response: 1.25</p>	
<p>3.4.2.1 How many Ph.Ds are registered within last 5 years</p> <p>Response: 40</p>	
<p>3.4.2.2 Number of teachers recognized as guides during the last five years</p> <p>Response: 32</p>	
File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	View Document
URL to the research page on HEI web site	View Document

<p>3.4.3 Number of research papers per teachers in the Journals notified on UGC website during the last five years</p> <p>Response: 2.23</p>	
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3.4.3.1 Number of research papers in the Journals notified on UGC website during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
145	135	163	113	68

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

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

Response: 0.48

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

2021-22	2020-21	2019-20	2018-19	2017-18
5	102	14	9	4

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

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

Response: 8.65

File Description	Document
Bibliometrics of the publications during the last five years	View Document
Any additional information	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:** 31.5

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

3.5 Consultancy**3.5.1 Revenue generated from consultancy and corporate training during the last five years (INR in Lakhs).****Response:** 6.29**3.5.1.1 Total amount generated from consultancy and corporate training year-wise during the last five years (INR in lakhs).**

2021-22	2020-21	2019-20	2018-19	2017-18
3.2	0.69	1.08	0.91	0.41

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

3.5.2 Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs).**Response:** 30.34**3.5.2.1 Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs)**

2021-22	2020-21	2019-20	2018-19	2017-18
0.5	0	1.18	12.31	16.35

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

3.6 Extension Activities

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

Response:

The extension activities of the college plays a vital role in sensitizing the students to the social issues and for their holistic development through activities carried out in the neighbourhood community. The various clubs and societies of the college such as NSS, Initiative club, Rotaract club, Youth Red Cross, Yi Yuva club, ECO Club, Red Ribbon Club and Women Empowerment Cell have played a significant role in organizing and executing social service activities for the betterment of society.

The NSS has been actively involved in carrying out several programs in the nearby adopted villages like Swachh Bharath initiatives, tree plantations, water conservation initiatives, social interaction sessions, group discussions and awareness campaigns on important social issues like environmental awareness, women empowerment, national integrity, AIDS awareness etc. These activities have been successful in creating a sense of responsibility among the students towards social issues and have helped them to develop leadership skills and self-confidence.

Apart from NSS, various departments of the college have also been playing an active role in shaping students into responsible citizens by organizing programs on various social issues like personal health and hygiene, diet awareness, road safety, tree plantation, soil and water testing, plastic eradication, female feticide, voters awareness etc.

All of these extension activities have had a positive impact on students, helping them develop a deeper understanding of social issues, enhancing their leadership skills, and creating a sense of responsibility towards society. These activities have also been instrumental in developing the hidden talents and personality of the students and creating awareness among them on various social issues.

Overall, the college's extension activities have played a crucial role in bridging the gap between the institute and the neighbourhood community, contributing to the holistic development of the students and creating a positive impact on the society.

Sensitization of students refers to the process of increasing students' awareness and understanding of social issues and encouraging them to take action to address them.

Activities organized by various clubs like Eye checkup, blood donation camp, Dengue Prevention Camp have helped to sensitize the students on the issues like maintaining health, self-hygiene and rural development. Disaster Management & Fire Safety, Donating Food Grains and Donating Chairs, Bed Sheet help to sensitize the students on the issues like life support and charities. Impact of these programs makes the students as socially responsible citizens.

The programs related to constitutional rights makes the students to create awareness about the constitution of India. By knowing the constitutional rights and responsibilities as a citizen of India they can serve the nation better.

The various programs organized by the EDC of the college help the students to understand about the start-up business and Entrepreneurship culture and also help them to develop innovative ideas. It motivates them to convert their ideas into startups.

The various activities organized by the clubs like Youth Red Cross, Yi Yuva club, Women Empowerment club, Initiative club helps the student to sensitize the students on social issue and for their holistic development.

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

3.6.2 Number of awards and recognition received by the Institution, its teachers and students for extension activities from Government / Government recognised bodies during last five years

Response: 24

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

2021-22	2020-21	2019-20	2018-19	2017-18
9	2	5	5	3

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

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

Response: 106

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

2021-22	2020-21	2019-20	2018-19	2017-18
32	14	24	22	14

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

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

Response: 57.57

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

2021-22	2020-21	2019-20	2018-19	2017-18
3244	1827	2482	3687	1464

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

3.7 Collaboration

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

Response: 260.2

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

2021-22	2020-21	2019-20	2018-19	2017-18
223	320	338	171	249

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

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

Response: 52

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

2021-22	2020-21	2019-20	2018-19	2017-18
11	5	14	9	13

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

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

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

Response:

Sethu Institute of Technology situated at Pulloor village, Kariapatti Taluk, Virudhunagar District, Tamilnadu on the National Highway (NH 38). The institution has adequate infrastructure facilities to effectively conduct all the programmes, encompassing an area of 132 acres, with a built-up area of about 49659.44 sq. m. with academic and amenity blocks, classrooms, laboratories, auditorium, and library. The Institution has 10 academic blocks, one administrative block, a common computer centre, a canteen, workshops & laboratories and two hostels. The institution caters to the needs of the students with well-ventilated classrooms, adequately equipped laboratories, and a comprehensively stocked central library with ICT resources including uninterrupted Wi Fi. The college is easily accessible through road, rail, and airways from Madurai. All building zones are well connected by bituminous roads. All departments are functioning in separate blocks with adequate facilities.

Teaching-Learning Resources

- Each Department has a well-designed structure with HOD cabin, Department office, Faculty rooms, Classrooms, Laboratories, and Department library.
- Adequately-furnished classrooms with fixed/portable ICT teaching tools for the effective conduct of 13 UG, and 5 PG programmes. Sufficient restroom facility is available for boys and girls separately. AICTE norms.
- The College has exclusive restroom facilities for the physically challenged persons.
- All the laboratories have adequate equipment and latest software as per the university norms.
- The College has 1159 Computers for Teaching Learning process as ICT infrastructure.
- The entire campus is Wi-Fi enabled with 24/7 internet facilities for the students and staff. 1 Gbps Internet facility is available in the whole campus including labs, classrooms, library, offices of all Departments, and hostels. The System and Networking Section of the College maintains the computers, networking and Wi-Fi facility.
- The college has air-conditioned 9 seminar halls with a seating capacity of 100 to 150, a conference hall with 50 seating capacity, and an auditorium with 600 seating capacity. These halls are regularly used for conducting national / International seminars / Workshops / Conferences / Innovative contests at the college. The students are encouraged to participate in paper presentations, quizzes, group discussions, etc. An Open Air auditorium which can accommodate around 7000 students is also available on campus.
- The central library has a built-up area of 845.26 sq. m. with a large number of books. It has 61,746 volumes in 16,755 titles and 2,600 back volumes. A digital library with a good collection of e-materials, Wi-Fi facility, reading rooms, a reference section, and a newspaper section is available for the enhancement of knowledge.
- The college has uninterrupted power backup facilities with Diesel Generator Sets having capacity 320 KVA, 125 KVA and 82.5 KVA. Further UPS facility for the computers with a capacity of 360 KVA is also available.
- The College has ample number of surveillance cameras, 24x7 security services, a dispensary and a

store with stationery facilities

- Separate hostels for Boys and Girls are available with comfortable boarding facility, uninterrupted power supply, water facility and Wi-Fi facility to cater to the needs of the students. The Hostel mess provides nutritious food to the students.

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

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

Response:

The Institution has a well established sports facility with 25 acres of playground and other facilities for different sports and games. The College has an experienced Physical Director to identify the skills and talents in the sports activities of the students and train them to develop both games and sports skills. The institution encourages the students to participate in different sports, games, yoga competitions in the University level, State level and National level. Besides, the college is specially focusing on following indoor and outdoor games. The facilities for the outdoor games are given below:

Facility for Sports and Games	No. of Items	Play area in sq.m
400 m Running Track	1	2200.00
Long Jump & Triple Jump	1	180.00
High Jump	1	30.00
Shot-Put (2.15 m dia.)	1	75.00
Javelin Throw	1	100.00
Disc Throw (2.35 m dia.)	1	100.00
Cricket Ground	1	17662.50
Foot Ball Ground	2	14300.00
Hand Ball Ground	1	800.00
Hockey Ground	1	5510.40
Volley Ball Court	4	1768.00
Basket Ball Court	2	1472.00
Kabaddi Court	2	330.00
Badminton Court 18*8)	1	144.00
Throw Ball Court (15*25)	1	375.00
Kho-Kho	2	435.00
Indoor Games:		
Chess	8 Boards	---
Carom	6 Boards	---
Gym Gambling:		
Weight lifting Olympic Rod	1	
Normal Bench Presser Rod	1	---

Dumbbell	1 Set	---
Horizontal Bar	1	---
Parallel Bar	1	---

Yoga Centre:

Yoga, Prayer and Meditation halls are provided in ladies and gents hostel to develop a healthy life and a sound body. Yoga helps the students to perform well in their Academic endeavours. The college celebrates International Yoga day regularly on the day.

Cultural Activities:

The Fine Arts club (Muthamizh Mandram) of the college aims to identify various hidden cultural talents of the students and helps them to bring out the talents. The Fine Arts Club of the College has a vibrant Fine Arts Club Coordinator, faculty members and active student members to organise various cultural programs inside the College and motivate the students to participate in various competitions outside the College also. The Club encourages and brings out the artistic capabilities of students in the field of Music, Dance, Visual arts, Film making, Story writing, Drawings, Poem writing and other cultural activities.

An intra-collegiate cultural competition is regularly organised by the Fine Art club in which more than 900 students participate. The other events which are organised by the club are: Rangoli, Mehendi, Cartooning, Paint the face, Art from waste, Dance, Orchestra, Elocution, Recitation, Tamil and English Verse writing and Skit. The SIT orchestra is a feather in the cap of the Fine Art Club. The college auditorium namely "Pavendhar Bharathidhasan Arangam" with a seating capacity 600 is available for organising cultural programmes. Besides, major cultural events are organised in the Open Air Theatre which has a seating capacity of 7000. The Fine Art club also invites guests from the world of music, art, theatre etc.

Facilities for Co-Curricular Activities	No. of Building	Area in sq.m.
Auditorium A/C	1	169.78
Open Air Auditorium	1	6000.00

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

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

Response: 100

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 85

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

4.1.4 Average percentage of expenditure for infrastructure augmentation excluding salary during the last five years (INR in Lakhs)

Response: 39.29

4.1.4.1 Expenditure for infrastructure augmentation, excluding salary year-wise during last five years (INR in lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
191.18	1132.06	969.16	1125.62	1836.63

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

4.2 Library as a Learning Resource

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

Response:

Integrated Library Management System (ILMS)

Name of the ILMS Software: MODERNLIB (Version 2016)

The Central Library provides excellent service such as books, journals, e-books, e-journals, magazines, newspapers with proper seating and reading facility and high-speed WI-FI facility to all students and faculty members.

The college has MODERNLIB software installed in 2002, which is an Integrated Library Management

System (ILMS). It is a popular and advanced Integrated Library Automation Management software, versatile, user-friendly, cost-effective and multi-user library automation software.

MODERNLIB is a Windows based software package for library automation has three modules in the system

- Library Management Module (used by librarian and assistance)
- Library Circulation Module (used by librarian and assistance)
- Student Search and Inquiry Module (used by student and staff)

Computerization of all activities of library includes acquisition, issue, return, renewal, clearance, fine, payment, loss, binding, recovery and missing pages etc. It is a highly efficient system which is easy and simple for the students or the staff to search the entire database and to find a book based on different criteria, namely the author, the title, the subject, the author & title etc. It is highly user interface and intuitive. Gate register for students and staffs, software package is fully integrated with barcode options. Complete stock verification option is available with barcode.

MASTERS MODULE

Master Module is used for registration of users, resources-registration like books, journals and bound volumes, projects and acquisition of resources form different department. The Master Module contains the menus like Rules, Courses, Fine, Vendors, Video/CD, Location, Rack, Subject and Subject Header and News Papers for the effective usage of the software.

TRANSACTIONS MODULE:

The software include the Transactions module which has Issue of resources, return of resources, reservation of resources, renewal of resources, loss recovery of resources, and duplication of user-id cards, payment of fines, providing nil arrear certificates, stock verification facilities, CD-Xerox payment charges, binding of resources etc.

CIRCULATION PROCESS: The user has to bring the ID card to the library at the time of entry

The ID card is used for E-Gate register and issue, return, renewal and reservation of resources. The barcode reader reads the identity card. The process of issue is completed by scanning the barcode label and the issue details will be sent to the respective user ID. Every book is pasted with a unique Accession number in the barcode sticker label.

USER ACCESS

It allows users to search the resources to see whether the resources is available or lost or under circulation or under binding. It give details to the user about reservation facility, new arrival of books availability of Videos & CDs.

QUERIES:

The staff and the students can use OPAC by searching through book title, author, Acc.no. Subject and year. The new arrival of resources is also available in queries.

REPORT GENERATION:

In this module the user can get the report of resources, fine, catalogue stock details, gate register etc.

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

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

Response: A. Any 4 or more of the above

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

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

Response: 7.89

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

2021-22	2020-21	2019-20	2018-19	2017-18
0.44	0.16	16.9	17.27	4.67

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

4.2.4 Percentage per day usage of library by teachers and students (foot falls and login data for online access) during the latest completed academic year**Response:** 17**4.2.4.1 Number of teachers and students using library per day over last one year**

Response: 770

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

4.3 IT Infrastructure**4.3.1 Institution has an IT policy covering wi-fi, cyber security, etc., and allocated budget for updating its IT facilities****Response:****IT Service Management**

The College has an effective IT policy and the policy is implemented through a dedicated team of staff members of the Server network Administration section. The IT facilities are being updated to cater the needs of all activities of the Institution. The College has a dedicated 1 Gbps Broadband connectivity which allows Wi-Fi connectivity throughout the campus. Intranet connectivity is provided to all the buildings through fiber optical cable. This facility allows students to access uninterrupted Internet connectivity anywhere within the campus. The common servers, department servers, networking infrastructure and common licensed software and hardware are maintained by the team. The Internet stream is regulated, and policies are created in the firewall for students and staff members. Backup procedures have been carried out on the college servers to handle risk of information loss. Windows defender was updated every year to prevent the virus attack on systems. Proper infrastructure (Space, AC) has been provided. Around 49 licensed and 14 Open-source software are installed in the campus. Microsoft Campus Agreement is renewed every academic year. Windows Base License is available for all machines with Windows OS and centralized servers are maintained. ERP center is effectively managing the information related to students and staff.

Information Security, Network Security

Firewall with UTM throughput of 3Gbps ('SOPHOS XG430') is installed and all the network zones are created and managed through this equipment. For proper usage of the Internet, the Internet stream is regulated and policies are created in the firewall for students and staff members. The System and Network Administration team has enabled the "SOPHOS XG430 firewall" for IP NAT, DMZ, Port blocking, Gateway Anti-virus, Gateway Anti-spam, web and application filtering.

- SNA maintains a log for all the internet access activities of every node through SOPHOS Event

Analyzer.

- K7 Antivirus is licensed for all common servers of the college.
- Internet connectivity is provided with 1 Gbps Internet leased line to have better Internet service.
- Wi-Fi access points have a controlled dual radio system and power radiation is kept with minimum 26dbm to avoid health hazards.
- All the computers with Internet connectivity are provided with the unique DNS for easy maintenance and security.
- Every system is protected with a username and password and individual login identities are provided to the students, faculty and administrative staff members.
- The campus is secured with 92 surveillance cameras for safety.

Software Asset Management

The College has a comprehensive IT policy that outlines the responsible use of Information Technology. Infrastructure at the college and all the users of IT are subject to this policy. The College website is effectively maintained by the SNA Detament and the students are also involved in web development activities. The System and Network Administration (SNA) Department has been established with the following set up to take care of the needs of IT infrastructure and IT enabled services:

1. Network Administration
2. Server Administration
3. System Administration
4. Web Development
5. Software Administration and Development.

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

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

Response: 4:1

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

4.3.3 Bandwidth of internet connection in the Institution.

Response: 750 MBPS

File Description	Document
Upload any additional information	View Document
Details of available bandwidth of internet connection in the Institution	View Document

4.3.4 Institution has the following Facilities for e-content development

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

Response: B. 3 of the above

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

4.4 Maintenance of Campus Infrastructure

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

Response: 23.9

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

2021-22	2020-21	2019-20	2018-19	2017-18
429.73	360.74	495.36	761.67	780.83

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

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

Response:

The College has established a systematic management and maintenance procedure in maintaining and utilizing physical, academic and support facilities. The College has a maintenance policy to maintain various facilities available in the college. There is an overall Convener for all facilities of the college and the convener allots work for various maintenance sections. The request for maintenance is processed after getting proper approval from the Principal and Management. In the Maintenance section, there are supervisors for electrical section, civil section, system and network administration section under the overall convener. The following are the systems and procedures in place.

Civil Maintenance Work:

The Civil maintenance section is headed by Estate Officer and he is responsible for carrying out necessary maintenance work of the buildings like regular check-up of the building for any leakage and other damages. Proper maintenance work is carried out periodically including maintenance of buildings, plumbing, and carpentry. In addition to the regular maintenance work, repair work is also carried out whenever necessary.

Electrical Work:

The Electrical section is headed by Electrical Engineer and he is responsible for carrying out necessary maintenance work of the electrical installation in all buildings. The UPS and Generator maintenance is also carried out to provide uninterrupted power supply to the entire campus. Proper maintenance work is carried out for Air-Conditioners, Electrical equipment and drives in the laboratories of all the departments. In addition to the regular maintenance work, repair work is also carried out whenever necessary.

System Maintenance and Administration:

IT enabled accessories are purchased and maintained regularly. All computers in the College are enabled with internet facility. A system of in-house maintenance is followed by the SNA department which installs and maintains the computers and their accessories. SNA does the renewal of the software license and internet connectivity. Their job profile includes solving hardware and software related issues, maintaining ICT facilities, overseeing service maintenance of electronic equipment viz. LCD Projectors, Audio-visual equipment, Public Address systems, Printers, Scanners, etc. In addition to the regular maintenance work,

repair work is also carried out whenever necessary.

Laboratories:

The equipment of laboratories are purchased with the approval of the Management. The department concerned is responsible for the maintenance of the laboratory equipment. The lab in-charges take complete responsibility of the maintenance of their laboratories. The periodical maintenance service is carried out for the equipment in the laboratories. For repair and calibration, the HOD concerned shall approach the appropriate service personnel from outside after getting the approval from the Principal.

Library:

Books have been purchased as per the need of the curriculum and periodical maintenance is also carried out. Stock verification process is done at the end of the academic year. The unique code of the identity card validates the entry and exit of the library users. The damaged books are periodically replaced with new ones. The computers and software are updated with proper maintenance procedure. All the e-journals and e-books purchased in the library can be accessed through Intranet. The worn-out books are regularly sent for binding and the back volumes of the periodicals and journals are also sent for binding for proper maintenance.

Sports::

Director of Physical Education with his team are the competent authorities to maintain the sports materials and Gymnasium. The playground maintenance is done on daily basis. The need based replacement system is in existence for the sports items and maintenance of permanent equipment in Gymnasium. Periodical service is provided as per the requirements.

Maintaining the Classrooms and laboratories:

The classrooms and the laboratories are properly cleaned by the Housekeeping section. The classrooms and laboratories are properly maintained by the department. For any repair work, the HOD shall approach the concerned section for repair and service. The restrooms are also properly maintained and cleaned to provide the hygienic ambience in the College.

The Institution provides and maintains the following services through third-party contracts

- The Cafeteria, run by the Private Canteen Services, meets all the refreshment needs of students and faculty members throughout the day.
- A cooperative store functions inside the campus, and offers all relevant stationery products at a reasonable price
- A Medical Centre is available within the campus offers its services in medical care and treatment to students and employees.
- A post office situated within the campus has brought convenience in meeting all the mailing needs

The College has proper maintenance procedures to maintain all the infrastructure, academic and support facilities like laboratories, library, sports complex, computers, classrooms, etc. to provide a holistic learning ambience for the students.

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

Criterion 5 - Student Support and Progression

5.1 Student Support

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

Response: 66.8

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

2021-22	2020-21	2019-20	2018-19	2017-18
2587	2630	2851	3210	3565

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

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

Response: 11.5

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

2021-22	2020-21	2019-20	2018-19	2017-18
633	569	464	607	250

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

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

Response: A. All of the above

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

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

Response: 42.83

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

2021-22	2020-21	2019-20	2018-19	2017-18
1265	2048	1998	2093	2098

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

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

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

Response: A. All of the above

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

5.2 Student Progression

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

Response: 34.46

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

2021-22	2020-21	2019-20	2018-19	2017-18
306	306	444	511	468

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

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

Response: 2.65

5.2.2.1 Number of outgoing student progressing to higher education.

Response: 29

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

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

Response: 9.82

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

2021-22	2020-21	2019-20	2018-19	2017-18
7	1	6	4	5

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

2021-22	2020-21	2019-20	2018-19	2017-18
53	27	49	38	53

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

5.3 Student Participation and Activities

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

Response: 210

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

2021-22	2020-21	2019-20	2018-19	2017-18
44	22	30	34	80

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

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

Response:

The college has a Student Association in each Department. Every association comprises of Secretary, Joint Secretary, Treasurer, Office Bearers and committee members guided by the faculty in-charge of the departments. Also the academic and administrative bodies of the College have the student representatives to enhance the traits of decision-making and leadership. The details of the activities are given below.

1. Class Committee:

The Class committee meeting is to improve the institution by redressing the academic issues. The committee consists of the student representatives from each class in every department. They discuss the academic plan, syllabus coverage, difficulties in the subjects, test pattern, result analysis and other departmental activities like symposiums, workshops, paper presentations, Mini projects, etc.

2. Program Assessment Committee:

Every program has a Program Assessment Committee (PAC), which is responsible for the design and development of the draft curriculum and the assessment of attainment of PEOs, POs and COs.

3. Department Advisory Board:

Department Advisory Board is the advisory body of the Department. The Head of the Department is the

Chair Person of the Board and the student representatives also contribute in the development of the Department

4. Internal Quality Assurance Cell:

The Internal Quality Assurance Cell (IQAC) coordinates the quality assurance activities of the College. It has representation of students and alumni in addition to the Heads of the Departments.

5. National service scheme:

The student volunteers of the NSS aim at developing student personality through community services. The NSS Program Coordinator and NSS Program Officer motivate the volunteers to serve the society through various activities like blood donation, special camps, awareness programs, planting tree saplings, temple cleaning etc.

6. Clubs:

The college has several clubs like Fine Arts Club, Eco Club, Rotaract Club, Initiative Club, YI Yuva Club, Youth Red Cross Club, Red Ribbon Club, Photography Club etc., in which the students actively participate in various programs. The student representatives of the clubs organize extra-curricular, cultural and social related activities.

7. Women Empowerment Cell

The student representatives of the Women Empowerment Cell join hands with WEC Faculty members to enhance the understanding of issues related to women and to make the college campus a safe place for women. Aiming at intellectual and social upliftment of the girl students various competitions are conducted like Rangoli, Mehendi, Cartooning, Painting and Art from waste.

8. Department Association

The Department Associations regularly organize technical programs in the name of clubs and societies. The associations regularly conduct various programs by inviting experts from industry as resource persons. The college is endowed with the student representatives in all the department associations and student chapters like CSI, IEEE, SOEC, ISTE, IE (I), SAE, IETE.

9. Student Welfare Committee

The student representatives of the Student Welfare Committee provide suggestions on various issues of the college including infrastructure, curricular, co-curricular, extra-curricular and support services. The Student Welfare Committee regularly meets and the Principal is the convenor of the committee. The suggestions given by the students are properly addressed.

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

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

Response: 18.4

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

2021-22	2020-21	2019-20	2018-19	2017-18
31	14	12	17	18

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

5.4 Alumni Engagement

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

Response:

Sethu Institute of Technology, established in 1995, is an Autonomous Institution, affiliated to Anna University, Chennai and approved by All India Council for Technical Education (AICTE), New Delhi. The first batch of students graduated in the College in 1999. Since then, around 20000 graduates obtained their degrees in various streams of Engineering and Technology and occupied enviable positions in different organizations around the world. The Institute has a lively Alumni Association for building a strong bond between alumni and Alma Mater. The alumni provide support to the students through interaction, financial funding, guidance and placement. The Alumni Association of Sethu Institute of Technology became vibrant under the stewardship of the Founder and Chairman Mr. S. Mohamed Jaleel, and the Association has Chennai Chapter, UAE Chapter and Bangalore Chapter. The Alumni Association of Sethu Institute of Technology strives to create a forum to foster fruitful communication and congenial relationship among the alumni, the students and the Alma Mater. The Alumni Association organizes the regular nostalgic gathering of the members at various places through its Chapters in India and other countries also.

The main motive of Alumni Association is to foster and support strong ties between the institution and its alumni as well as amongst the alumni themselves. Alumni may encourage and support the Institution's pursuit of academic excellence. The association helps to mentor new graduates who have finished their education find work and take part in worthwhile activities that benefit society.

The association plans and coordinates the alumni reunion events and allow the alumni to express their thanks to their Alma Mater. The College strongly believes that the success of the Alumni reflects the success of the Alma Mater. The College believes in the dictum that the strength of the Institution lies in the rapport maintained between the Alumni and the Institution. A mutually beneficial relationship between the Institute and its graduates is the goal of the Alumni Association.

The Alumni members extend their support through:

- Acting as members in the Department Advisory Board, Board of Studies, Academic Council, Internal Quality Assurance Cell, etc.
- Helping the College to get permission for industrial visits in their organization.
- Coordinating with the companies for signing MoU.
- Organizing on campus & off campus placement programs for the students with the coordination of alumni.
- Delivering Guest lectures to the students
- Motivating the students on the current industrial expectations.
- Each department separately conducts meetings with their alumni members.
- Alumni are invited as Chief Guests for symposiums and various events conducted in the department.
- Serve as role models for students through distinguished services in different fields of service.
- Some of our alumni are successful entrepreneurs and they are motivating the budding engineers to become an entrepreneur by sharing their experience.

PADIKKATTUGAL (STEPS) is one of the examples for alumni social responsibility, started by an alumnus M. Kishore, ICE department, 2008-12 batch. This is a non-profit trust which renders its service to orphanages, old age homes etc. with the support of alumni and public.

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

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

Response: D. 2 Lakhs - 5 Lakhs

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

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

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

Response:

Vision

- To promote excellence in technical education and scientific research for the benefit of the society

Mission

- To provide quality technical education to fulfil the aspiration of the student and to meet the needs of the Industry
- To provide a holistic learning ambience
- To impart skills leading to employability and entrepreneurship
- To establish effective linkage with industries
- To promote Research and Development activities
- To offer services for the development of society through education and technology

Core Values

- Quality
- Commitment
- Innovation
- Team work
- Courtesy

Articulation of Vision and Mission Statements

Sethu Institute of Technology envisions that the graduates should excel in all areas of education. The Vision statement emphasizes that the College aims to promote excellence in the field of technical education and imbibe research culture among the faculty and students, which will be beneficial for the

society. The Mission statements stipulate the strategies to achieve the Vision of the Institution. The Mission statements focus on providing quality technical education in order to fulfil the aspirations of the students who will, in turn, meet the needs of the fast growing industries. For learning to be effective it needs to be delivered in a congenial environment. The students have access to state of the art infrastructure. The learning is predominantly to make the student as whole person, i.e. it seeks to engage fully all aspects of the learner mind, body and spirit. The curriculum and teaching methodology adopted would enhance the employability of our students and inculcate in them the spirit of entrepreneurship. Our Institute aims at establishing effective linkage with various industries to make the students industry ready. The ultimate goal is to benefit the society at large through appropriate education and technology.

Nature of Governance

The governance of the college is guided by the Governing Council which comprises the members of the trust, eminent educationalists, industrialists, faculty representatives, nominees of the University and Directorate of Technical Education. The Governing Council takes the policy decisions to enhance the quality and ensure growth and development of the College.

Perspective Plan

The Vision and Mission of the College and feedback from the stakeholders are considered for preparing the Strategic Plan. The Planning and Evaluation Committee prepares the Strategic Plan and ensures the effective implementation of the same through yearly targets. The achievement of targets is reviewed by the Internal Quality Assurance Cell and the Governing Council.

Participation of Teachers

The College follows the Participative Management System in all its decision making process. Faculty members at all levels are involved in decision making. In the Governing council, faculty members are also participating in decision making in addition to the eminent members from industry, academia and regulatory bodies. In the Department faculty meetings faculty members provide their suggestions in all department level activities like academic excellence, R&D, Industry Institute Interaction, organizing seminars, academic performance of the students, corrective measures for the slow learners, encouragement for the toppers etc. Faculty members are involved in various other committees for the smooth functioning of the College.

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

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

Response:

Case Study: Decentralization of Responsibilities to Deans and Heads of the Departments

Decentralization in working is practiced at different levels in the college and stakeholders are involved in the process of decision making based on collective wisdom. All the policy decisions of the College are taken based on the guidance of the Governing Council. The Principal delegates the various responsibilities and functions to Deans and Heads of the Departments so that the decision making can be done quickly. The various activities of the College are decentralized and the respective Deans are entrusted with relevant responsibilities. Dean (Curriculum Design and Development) looks after the Autonomous Regulations as per the norms of the Statutory Bodies and coordinates with the Board Chairpersons to draft an effective curriculum for the respective program. Dean (Academics) looks after the teaching learning and evaluation processes and monitors the quality of teaching learning and evaluation process in line with Outcome based Education (OBE). Dean (Planning and Development) is entrusted with to ensure the quality sustenance and enhancement of all activities of the College and coordinates the Internal Quality Assurance Cell (IQAC). The College also has various committees to carry out the responsibilities entrusted to them. With proper formation of various committees, smooth conduct of the college is achieved. As the College grew in size, number and courses, the challenges also grew in academic administration, finance management, resource planning and sharing and the like. Through decentralization the college has redistributed authority, responsibility, financial resources and infrastructure among the different levels of organizational setup.

Decentralization of Academic Responsibilities

Principal is the Head of the Institution and he delegates the various academic responsibilities to Deans, Controller of Examination and Heads of the Departments for smooth functioning of Academic and other activities. Staff council meeting is an executive council to take decisions in academic, research and industry institute interaction initiatives, etc. The members who participate in this meeting are Principal, Vice Principal, Deans, HoDs, COE, Professors and functional heads like Librarian, Placement Officer, etc. Participative Management System is followed and all decisions are taken, after detailed discussions and implemented meticulously after arriving at a consensus decision. The College has academic deans for the departments where a large number of students are studying. The Dean (Science and Humanities) takes care of the first year students and the progress of the first year students is monitored by the Dean. The College has several CSE & IT related programs and the Dean (CS & IT) monitors the progress of all programs related to CSE & IT. Each department is headed by the head of the Department. Every class has a class advisor who monitors the performance of the students. Mentoring system is adopted in the College to encourage, motivate and guide the students in their academic pursuits. The College has an Exam cell to conduct and monitor the Internal Examinations of all Departments. The functions and responsibilities are decentralized and they carry out their responsibilities in their respective areas.

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

6.2 Strategy Development and Deployment

6.2.1 The institutional Strategic / Perspective plan is effectively deployed

Response:

The College prepares a Strategic plan for the development on a periodic basis taking into consideration the views of the stakeholders. The Strategic Plan (2016 – 2022) is derived from the Vision and the Mission of the College. The Strategic Plan stipulates the goals and objectives for the plan period. It also specifies various strategies to be adopted to achieve the goals and objectives of the plan. The targets to be achieved through these strategies are also mentioned in the plan.

OUTLINE OF THE STRATEGIC PLAN

The College Vision and Mission statements emphasize on excellence in education, research, service to the society etc. The goals for the Strategic Plan also have the same attribute and following are the four goals of the Strategic Plan.

Goals of Strategic Plan (2016 – 2022)

1. Excellence in technical education
2. Excellence in research
3. Excellence in industry collaboration
4. Excellence in Institutional effectiveness

Each goal of the Strategic Plan has specific objectives and goals are met through suitable strategies. The Planning and Evaluation Committee of the College proposes the targets to be achieved every year. The implementation of the strategic Plan is properly reviewed and monitored in the Internal Quality Assurance Cell meetings and the Governing Council.

Successful Implementation of an Activity: Enriching Student Experience to Promote Excellence

- The College is making efforts to achieve excellence in all areas like faculty excellence, educational excellence, infrastructural excellence and excellence in student experience to achieve excellence in technical education. Enriching student experience and promoting student excellence is of paramount importance to achieve excellence in technical education. The choice based credit system facilitates the students to take courses of their choice, learn at their own pace, undergo additional courses and acquire more than the required credits, and adopt an interdisciplinary approach to learning to enhance the scope and depth of learning. Open Elective Courses and Multidisciplinary Project are some of the avenues for inter-disciplinary learning of the students. Online Courses provide unique opportunity for the students to expand the horizons of knowledge. This helps the students to use the best teaching learning resources around the world. The Government of India has an indigenously developed IT platform that facilitates hosting of all the courses through SWAYAM Portal. The students are motivated to undergo online self-learning courses like NPTEL, Coursera, edX etc. The students are encouraged to do creative and innovative projects and they are motivated to participate in National level competitions. The students are encouraged to participate and excel in various co-curricular and extra-curricular competitions. The students are provided necessary training to become entrepreneurs and the College provides necessary help and support for the needy students. They are equipped with the right talent and

personality to be found employable through structured placement training programs and career guidance programs. The students are encouraged to participate in various socially responsible activities inside and outside the college through NSS, YRC, RRC, Rotaract, ECO Clubs, to have diversified enriching experience in the campus.

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

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

Response:

Sethu Institute of Technology was established by Sethu Educational Trust and it is headed by Managing Trustee. The trust is also the Board of Management of the College. The Managing Trustee of Sethu Educational Trust is the Chairman of the College who holds the highest office. He is also the Chairperson of the Governing Council which is the statutory decision making body of the College for all the administrative and academic activities. Based on the recommendations of the Governing council, the Principal takes decisions in the academic, administrative and research and development activities of the Institution. The members of the Board of Management shoulder the responsibilities of the College as Chief Executive Officer, Joint Chief Executive Officer, Director-Administration and Director-Research & Development. The other Statutory bodies of the College are Academic Council, Board of Studies and Finance Committee. The Academic Council of the college is the apex body for approving the curriculum & syllabus and academic regulations. The Academic Council has eminent scholars, representatives from the industry, scientists and representatives from University, AICTE & Directorate of Technical Education. The Academic Council takes much effort to implement the latest regulations of UGC and AICTE. The Academic Council approved the Choice Based Credit System (CBCS) regulation in 2015. The Curriculum and Syllabus are finalized and approved by the Academic Council with much care in order to have a blended curriculum of core and emerging technologies. The Board of Studies of each Department prepares the Curriculum and Syllabi and recommends to the Academic Council for approval. Each Board of Studies has eminent academicians, representatives from industries and university nominee. Each board takes much effort to prepare curriculum and syllabus of their program to enhance the employability, entrepreneurship skills and to enable the students for higher studies.

The Principal is the Head of the Institution and implements all the policies provided by the Governing Council and as the Chairperson of the Academic Council endeavors to maintain quality in curriculum development, teaching learning & evaluation process. He is assisted by a dynamic leadership team consisting of Vice Principal, Deans, Heads of the Departments and Controller of Examinations. All the important decisions are taken at the meeting of Heads of the Departments in a participative manner. The Deans and Heads of the Departments take care of the Teaching and Learning, Extra-curricular and Co-curricular activities. There is a vibrant Training and Placement Cell that functions under the effective

guidance of the Dean-Placement. The Controller of Examination is responsible for all the examination related activities of the College. The faculty members are recruited by the proper recruitment process stipulated in the HR Policy Manual. The rules & regulations and procedures for appointment are provided in the HR Policy Manual. The continuous improvement is ensured through periodical interaction with the stakeholders and by taking suitable corrective actions. The participative management approach is practiced at different levels in the college and all the stakeholders are involved in the process of decision-making based on collective wisdom.

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

6.2.3 Implementation of e-governance in areas of operation

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

Response: A. All of the above

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

6.3 Faculty Empowerment Strategies

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

Response:

The College offers a wide range of welfare measures to suit the needs of the teaching and non-teaching staff members and focuses on the well-being of the employees.

- Provision for a separate lunch room for the benefit of staff members and girl students.

- Provision of canteen in the campus,
 - The management grants maternity leave to the women employees, for a period of 60 days with full pay and limited to the first two living children.
 - Educational loan for higher studies
 - Group Insurance Scheme.
 - Free Accommodation
 - Interest Free loans for emergency.
 - Free admission or concession of fees for children of employee.
 - Free Transport for faculty and staff.
 - In the event of death of an employee, while in service his/her dependant will be considered for employment on compassionate grounds, depending upon the merit of the case, limited to the cadre Junior Assistant, subject to eligibility of the individual concerned and the availability of vacant posts.
 - The members of staff are covered under Employment Provident Fund Scheme as per the act.
-
- TA, DA and other expenses for attending Conferences and training Programmes
 - Financial assistance is provided to attend International Conferences held outside India
 - Incentives for research publications, sponsored projects and consultancy works
 - Group Insurance for all students and their parents, faculty and staff
 - Ambulance facility

Career Development

Career development avenues are available for faculty members and promotion to higher level of service shall be made subject to availability of the posts, eligibility of the staff, based on merit, efficiency and the norms, besides the commitment of the staff to the cause of all-round development/improvement of the corporate life of the institution.

Career Advancement to higher level of service shall be made subject to availability of the posts, eligibility of the staff, based on merit, efficiency and the norms given by AICTE, besides the commitment of the staff for the development of the institution. Other things being equal, seniority will be the deciding criterion. The following are the cadres of the faculty members.

1. Assistant Professor
2. Associate Professor
3. Professor
4. Senior Professor

The faculty members are promoted when they acquire the required qualifications and experience stipulated by AICTE. The performance of the faculty member is also considered for career advancement. The following are the criteria considered for performance appraisal:

Performance Appraisal of Employees

Annual Staff Performance Appraisal System is followed. The system consists of:

- Student Feedback
- Self Appraisal

- Appraisal by Head of Department
- Peer Committee Appraisal
- Appraisal by Principal & Management

Based on the qualification, experience and the outcome of the performance appraisal, the college shall reward the faculty member as given below:

- Promotions
- Selection to HODs / Chairman of Committees
- Eligibility for Study Leave and other benefits
- Awards

Similarly, the Non-teaching staff members who complete required years of service will be promoted automatically to the next higher cadre. The college takes much efforts for welfare measures for teaching and non-teaching staff and provide avenues for career development and progression.

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

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

Response: 3.57

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

2021-22	2020-21	2019-20	2018-19	2017-18
3	6	13	18	12

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

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

Response: 13.6**6.3.3.1 Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff year-wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
13	28	8	9	10

File Description	Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centres).	View Document
Reports of Academic Staff College or similar centers	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for additional information	View Document

6.3.4 Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course).**Response:** 40.35**6.3.4.1 Total number of teachers attending professional development Programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
71	141	126	124	105

File Description	Document
Reports of the Human Resource Development Centres (UGC ASC or other relevant centers)	View Document
IQAC report summary	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for additional information	View Document

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Response:

Internal audits are conducted by the Accounts Section of the College. The Internal Audit is conducted on revenue expenditure, fixed assets, advances paid, fees collection, infrastructure augmentation, and preparation of filing IT returns for Income Tax. The accounts section also prepares expected revenue for the next financial year to prepare annual budget of the institution and the expected revenue expenditure is also forecasted to the Management. After the preparation of internal audit reports the external audit is also conducted and IT return form is submitted to the Income Tax department. The Management review the pattern of revenue and expenditure and also forecasted revenue and expenditure for the next financial year. The college prepares the budget based on the expected revenue and expenditure provided in the audit report. The budget for the forthcoming financial year is submitted in the Governing Council for approval. The audit reports helps the institution to review the financial stability and prepare financial planning for the next financial year. The college also prepares suitable corrective actions and fiscal discipline for the healthy financial growth.

All vouchers are verified in the Internal Audit. Cash inflow and expenditure are monitored using Tally software and cash collected at the counter is deposited in the account every day. The aspects of the significant accounting policies such as the Accounting system, Revenue generation and Fixed assets and depreciation are verified. The advances given to construction activities, Electricity deposits, teachers advance and fixed deposits are audited by the internal auditor. The details of outstanding fees receivable is prepared and the follow up is made to ensure payment of fees.

The accounts of the College are audited every year by a registered Chartered Accountancy Firm. The financial statements are also certified by the Audit Firm. The balance sheet is prepared by the audit firm. The sources of fund and the application of funds are clearly analyzed and balanced. The income expenditure account is also analyzed by the audit firm and provide a comparison with previous year income and expenditure. The grants received from the funding agencies are audited and certified by the Chartered Accountant and the Statement of account and Utilization Certificate are submitted to the funding agencies. The fixed assets are also compared and additions during the year is prepared and depreciation is also calculated. The audit follows mercantile system of accounting of its income and expenditure. All

accounts of the college are audited regularly and if any audit objections are found suitable corrective actions are taken.

The college has a Finance Committee has stipulated by the University Grants Commission and the finance details is presented before the committee. The Finance Committee provide suitable suggestion for the financial growth and stability of the institution. The Governing Council also analyzes the income and expenditure of the college and provides suitable suggestion for the betterment of the institution. Using the audit reports, the college takes all measures to maintain financial stability and proper planning is made for the growth and development of the institution.

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

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

Response: 1542.8

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

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	6.3	0	1536.5

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

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

Response:

Mobilization of Funds:

The College is taking efforts regarding resource mobilization. The college mobilizes resources through

several avenues such as student's tuition fee, hostel fee. Besides, the college also taps funds from all possible sources including the government and non-government bodies. Management is a major contributor. Contributions from alumni and philanthropists, Consultancy are also the key sources of revenue for the institution.

Strategies for Resource Mobilization:

◦ Student Enrolment

The College ensures to get maximum student enrolment every year by adopting suitable promotional strategies. The sustenance of the College relies on student enrolment, as it ensures financial stability of the Institution.

◦ Infrastructural and Research Grants

The College receives funds from various Govt. funding agencies like DST, AICTE, UGC etc. Infrastructural Development funds like DST-FIST, AICTE-MODROBS and various research grants are also obtained. The College is keen to get more Infrastructural and Research grants from Govt. agencies.

◦ Funds through Consultancy

The College receives funds from various types Industrial Consultancy. The College keen to promote more Industrial Consultancy

◦ Self-supporting capability of the Departments

The Departments used to request funds to the Management for conducting various programs. Now, the College has a policy that Departments should generate funds to conduct their Departmental programs

◦ Internal Revenue Generation

The College encourages various income generation activities gardening, Consultancy, producing vermicompost etc.

◦ Enhancing funds from Alumni

The alumni are contributing to the College for Departmental development, conducting programs and supporting the financially weak students etc. The college is keen generate more funds through Alumni Interaction.

◦ Mobilizing Funds from Philanthropists

The College is taking efforts to mobilize funds from Philanthropists and the College has prepared a Profile for this purpose. The Chairman has met several Photoresists in this regard.

Optimum Utilization of Resources:

◦ Optimizing Budget Allocation

The Budget proposals from various Departments and sections are consolidated and the College Level Budget is presented to the Management. The College level Budget is reviewed and the Budget allocation is optimized by sanctioning the necessary and statutory requirements and optimizing the sanctioned amount for non-core activities.

- **Optimizing the Maintenance Expenditure**

The maintenance expenditure of the Institution the major expenditure for our College with 25 years of standing. The College insists on routine maintenance and thereby reducing expenditure on major breakdown or repair.

- **Optimizing Electricity Charges**

Conservation of Electricity is an important strategy in optimizing the resources. Energy audit is carried out to utilize the electrical energy.

- **Optimizing Fuel expenses**

The College has a fleet of 60 buses to transport students and staff. The College is taking effective measures to save fuel.

- **Optimizing the Water Usage**

The College utilize the water resources effectively by recycling the waste water. The College has a Sewage water treatment plant for this purpose. The waste water from Mineral water plant is also recycled.

- **Optimal Utilization of Infrastructure for Revenue Generation**

The College building is effectively used for academic purpose. This infrastructure is utilized optimally for conducting Govt. Exams, Bank Exams, GATE etc.

- **Optimal Utilization of Laboratory facilities**

The laboratories are scheduled for optimal usage by the departments.

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

6.5 Internal Quality Assurance System

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

made for the preceding five years with regard to quality and post accreditation quality initiatives (second and subsequent cycles)

Response:

The IQAC of the College has contributed towards institutionalizing the quality assurance strategies. The College has adopted Outcome Based Education and IQAC conducted several meetings towards the Implementation of OBE.

IQAC plays a major role in institutionalizing the preparation and implementation of the Strategic plan. The two practices effectively implemented by IQAC are:

1.Implementation of OBE

2.Preparation and Implementation of Strategic Plan

Practice 1: Implementation of OBE

Outcome based Education

The College made a paradigm shift in the education process to follow Outcome based Education and the Programs define their Program Outcomes and the Program Specific Outcomes. After defining outcomes, the curriculum and syllabus, proper pedagogical and assessment methods are designed to attain the Outcomes.

Defining Outcomes

All the Engineering Departments frame Department Vision and Department Mission and PEO statements. Program Outcomes are also framed based on the desired Graduate attributes and Program Specific Outcomes (PSOs) are also framed.

Designing Program Curriculum to attain Outcomes

Program Curriculum is framed to help the attainment of PEOs, POs and PSOs. The Program Curriculum and the Course Outcomes (COs) are mapped with and POs and PSOs. The mapping levels are checked and the curriculum and syllabus are reframed based on level of the mapping.

Pedagogy and Assessment to attain Outcomes

Teaching and learning methodology (Pedagogy) and the assessment methodology for the courses are properly designed to facilitate the attainment of POs, PSOs and COs.

Assessment of Outcome Attainment

The Procedure for Assessment of Outcomes are framed. The Programs assess the attainment and the levels of attainment for POs, PSOs and COs and proper corrective actions are carried out to improve the attainment levels.

The IQAC discusses the entire process of OBE in the Internal Quality Assurance Initiative Meetings and

provides training to the faculty members.

Practice 2: Preparation and Implementation of Strategic Plan

SWOC Analysis – A preparatory tool for Strategic Plan

The College conducted a detailed survey and SWOC Analysis survey was prepared. The strength and weakness of the Institution were identified.

Drafting and Approval of Strategic Plan

The draft Strategic plan prepared by Planning and Evaluation Committee was submitted to IQAC for review. The Plan is drafted based on the Vision and Mission of the college and the SWOC Analysis report the views of the stakeholders are also considered. The Strategic Plan was reviewed by IQAC was approved by the Governing Council.

Strategic Plan and its Implementation

The Strategic Plan (2016 – 2021) stipulates the goals and objectives for the plan period. It also specifies various strategies to be adopted to achieve the goals and objectives of the plan. The targets to be achieved through these strategies are also mentioned in the plan. IQAC disseminates the details of the Plan to all Departments and they are asked to achieve the target.

Review of Implementation strategies

The IQAC reviews the implementation strategies and analyse the details of target achieved. Based on the review, the strategies are refined and targets revised to achieve the goals of the Strategic Plan.

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

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

Response:

The College adopts Outcome Based Education (OBE) in curriculum design, teaching & learning and evaluation process. In OBE the students learning is measured through the attainment of COs, POs and PSOs. The analysis of attainment of outcomes is very essential in OBE. The College reviews the teaching

learning process through the analysis of attainment of outcomes and the attainment of POs through Project Work.

Institutional Review: 1

Review of Attainment of Learning Outcomes by IQAC

Procedure for Measuring Attainment of Learning Outcomes – An IQAC Initiative

The learning outcomes COs, POs and PSOs are properly reviewed through IQAC setup. The procedure for measuring attainment of Learning Outcomes like Course Outcomes, Program Outcomes and Program Specific Outcomes are finalized through discussion in the Internal Quality Assurance Initiative Meetings.

Assessment of Attainment of Learning Outcomes

The assessment of attainment of Course Outcomes is mainly based on the performance of the students in the Continuous Internal Assessments and the End Semester Examinations. Feedbacks are also received from the students for the assessment of Outcomes.

The assessment of attainment of Program Outcomes (POs) and Program Specific Outcomes (PSOs) is done based on the performance of students in the Direct Assessments and the Indirect Assessments. The direct assessment is based on course outcome attainment analysis report and rubrics developed. The indirect assessment is the Exit survey form for the corresponding courses and program, student portfolio, Employer survey form and the performance of the students in Nationally Normed Exams.

Periodic Learning Outcome Attainment Analysis

For each Learning Outcome target of attainment is finalized through discussion in the Program Assessment Committee. IQAC provides guidelines for fixing target of Attainment. The Learning Outcome attainment is compared with the target. The status of attainment of each Learning Outcome and its level of attainment is ascertained. A detailed analysis is carried out to improve the attainment of the Learning Outcomes. After analysis of the Learning Outcome attainment by the Programme Assessment Committee and the suggestions for improvement of Learning Outcome attainment is given and suitable corrective actions also suggested.

Periodic Review of Learning Outcome Attainment by IQAC

The review of Outcome attainment analysis is done by the Internal Quality Assurance Cell (IQAC) periodically. Based on the review, suitable actions are initiated for improving the curriculum/Course content, content delivery and assessment to enhance the attainment of outcomes. Department Advisory Board (DAB), Board of Studies (BoS) and Academic Council also reviews the attainment analysis of the Outcomes. The members of these forums also give further suggestions for improving the attainment. The Program Head takes suitable corrective actions and it is reviewed in Internal Quality Assurance Meetings.

Institutional Review:2

Analysis of Attainment of POs and PSOs through Project Work:

Preparation of Rubrics for assessment of Learning Outcome attainment of Project work - An IQAC Initiative

Project work is a special kind of course in which no syllabus is provided for the course and the curriculum delivery for the course is also minimum, except the role of the supervisor. Hence, proper rubrics should be designed to attain the expected level of the outcomes. IQAC has played an important role in finalizing the rubrics for assessment of COs attainment of Project work.

Rubrics for assessment of COs attainment of Project work

Review 1

100 Marks

1.1 Applying Engineering knowledge for Problem Identification/Identification of Societal issues (PO1, PO6) - 40 Marks

- 1) Definition of the Problem (10)
- 2) Motivation for the Problem (10)
- 3) Objectives of the Project Work (10)
- 4) Usefulness/Relevance to the society (10)

1.2 Literature Survey (PO2,PO4) - 30 Marks

- 1) Quantum of Literature referred (10)
- 2) Quality of literature referred (10)
- 3) Inference from the Literature Survey (10)

1.3 Communication - Oral (PO10) - 30 Marks

- 1) Voice and tone (10)
- 2) Language (10)
- 3) Responsiveness (10)

Review 2

100 Marks

2.1 Analysis of Design requirements (PO2,PO4) - 30 Marks

- 1) Analysis of design requirements (10)
- 2) Design of experiments for analysing data/Function Block/ Architectural Design (10)
- 3) Meeting the Design Requirements (10)

2.2 Addressing public health, safety, cultural and societal and environmental needs (PO3, PO6, PO7) - 20 Marks

- 1) Consideration for public health, safety and cultural aspects (10)
- 2) Consideration for social and environmental aspects (10)

2.3 Team Work (PO9) - 30 Marks

- 1) Working with others (10)
- 2) Listening to others views (10)
- 3) Contribution to the Project Work (10)

2.4 Modern Engineering & IT Tools used (PO5) - 20 Marks

- 1) Identification of appropriate tool (10)
- 2) Proper usage of the Modern tool (10)

Review 3 **100 Marks**

3.1 Adopting the norms of engineering practice (PO8) - 20 Marks

- 1) Adopting ethical norms and procedures for the design (10)
- 2) Acknowledgement for using other's published results or idea (10)

3.2 Synthesis and valid conclusion of the project (PO4) - 30 Marks

- 1) Experimental Results (10)
- 2) Analysis/Interpretation of Results (10)
- 3) Conclusion of the Project Work (10)

3.3 Project Management and Finance (PO11) - 30 Marks

- 1) Time management (10)
- 2) Finance management/Cost Analysis (10)
- 3) Sharing of Work among the members (10)

3.4 Novelty (PO12) - 20 Marks

- 1) Extent of advanced learning to carry out the project (10)
- 2) Novelty of the Project Work & Scope for Extension (10)

Attainment of Learning Outcomes of Project work – Analysis & Review by IQAC

The attainment analysis Learning Outcomes of the Project work is very important because the most of the Program outcomes can be attained through Project work only. The attainment analysis Learning Outcomes of the Project work is periodically reviewed in IQAC Meetings. The members provide useful suggestions and suitable corrective actions are carried out.

By the periodic analysis and review of the attainment of learning outcomes, the teaching learning process continues to show improvement leading to quality sustenance and enhancement of the process.

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

6.5.3 Quality assurance initiatives of the institution include:

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

Response: All of the above

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

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1 Measures initiated by the Institution for the promotion of gender equity during the last five years.

Response:

Sethu Institute of Technology always motivates and **ensures gender equality**. The college always concentrates on students' qualitative performance along with their overall personality development. Every member of society wishes for equal rights and equal opportunity to access the resources available to them. Even though gender bias can be found even in progressive societies and top organizations, Sethu Institute of Technology endeavors to achieve gender equality **by providing various facilities and special attention to the girl students**. The institution **assures the prominence to gender equality** inside the organization. The college undertakes several measures and programmes to **promote a culture of respect and equality** for female gender and also to **provide opportunities**. The College conducts programs for the female gender to be financially, mentally and emotionally empowered. The college ensures that there is fair and impartial treatment with students of both the genders. The college **takes care about the safety and security** of all the girl students of the college. There are different committees in the college functioning for the development of all the students of the college. The following facilities were provided to women

Safety and Security

The College has complete safety and security arrangements in all blocks of the campus. The entire campus is fully under surveillance with CCTV monitoring system. Various committees like Students' welfare Committee, Anti-Ragging Committee, Anti-Ragging Squad and Internal complaints cell are functioning to address the issues of the students. The College also has a Discipline Committee which monitors the general discipline of the College including the safety of girls.

Counseling

Sethu Institute of Technology has an effective and efficient Women Empowerment Cell since 2005, through which the girl students are counseled and motivated about the women rights, health, and safety & security issues. Special sessions are arranged to counsel them about women rights, health and gender equality. A girl's redressal cell is functioning meticulously to focus the problems of girl students and women faculty members inside the campus and in the hostel.

Common Room

A TV hall, Prayer Hall, a mess, browsing hall, a store and a Gymnasium are available in the hostels as a commonplace for gathering. Separate Canteens, Lunch hall, and ladies Restroom are available inside the campus to facilitate the girl students and women faculty. The girl's restroom is available for girl students to take rest and for other personal and medical needs. Girl's washroom is provided with dressing mirrors, newspapers, and the availability of sanitary pads. Separate provision has been arranged in the canteen, food counters, juice shop, mini canteen and store for girls.

Day Care center for Kids

The Institution supports the lady faculty members by providing the day care facility inside the ladies hostel to take care of their little kids. The day care centre is equipped with a variety of playful toys and a first aid kit for the emergency. Separate day care in charge was appointed to take care of the kids and engage them during the working hours of the lady faculty members.

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

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

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

Response: B. 3 of the above

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

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

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

Response:

Sethu institute of technology is equipped with facilities for the management of degradable and non-degradable wastes generated in the campus. Institute is conscious about the environmental issues arising out of improper solid waste handling and ensures that waste is properly disposed and recycled.

SOLID WASTE MANAGEMENT

The monthly average solid waste produced is around 10,078 kg. It comprises 802 kg of Paper Waste, 3800 kg of Horticultural Waste, 2806 kg of Food Waste, 110 kg of Glass and Metal Scrap, 40kg of Biomedical waste, 2400 kg of Domestic Waste and 120kg of Ash. Awareness Rallies are being organized by the volunteers of Eco Club and NSS to create awareness among the Students and staff and Faculty members to sensitize about Waste Reduction Techniques, Recycling of Solid Waste and Environmental Protection in Campus. No waste is burnt on the Campus, all the combustible waste is collected by the Municipality for proper disposal.

LIQUID WASTE MANAGEMENT

Wastewater comprises all sewerage and sullage, used water from cooking, showering, and cloth washing and coming out of any type of faucet or apparatus and ultimately going down a sink or drain. Average wastewater generated on campus is around 85,965 Litres/Year. It is treated by the fully automatic sewage treatment plant (STP) of 4 lakh Litres capacity using Fluidized Bed Bioreactors (FBBR) with an investment of Rs.22.7 Lakhs established

BIOMEDICAL WASTE MANAGEMENT

The Department of Biomedical Engineering is following the waste management policy for segregating bio-medical waste generated from the dispensary, pathology and microbiology labs. The Biomedical wastes are classified as Human Anatomical Waste (human tissues, organs, body parts), Microbiology & Biotechnology Waste, Waste sharps, etc. The Biomedical waste is colour coded with Yellow, Red, Blue and Black and collected in different types of containers. It is treated by various treatment methods such as local autoclaving, microwaving, incineration, Disinfection, chemical treatment, shredding, deep burial and disposal in secured landfills. Regular monitoring of disposal is carried out by laboratory faculty in-charges.

E-WASTE MANAGEMENT

Electronic waste is the discarded electrical and electronic devices. Used and obsolete electronic products destined for refurbishment, reuse, resale and salvage recycling. The System and Network Administration department (SNA) takes care of e-waste management of the Sethu Institute of Technology. Old Computers, UPS and Printing systems are sent to scrap dealers for safe disposal based on the recommendations of the e-waste management committee. The committee inspects and suggests the items to be recycled from various laboratories, computers, monitors, printers and batteries etc. as scrap materials.

HAZARDOUS CHEMICALS AND RADIOACTIVE WASTE MANAGEMENT

Chemicals used in various departments such as Chemistry, Chemical and Biomedical departments are classified as Corrosives, Water reactives, Flammable chemicals, Pyrophorics, peroxide forming chemicals, diluting organic peroxides. The Chemical containers are labeled with the name of the chemical hazard class, pictogram, hazards and information for safe handling. Further, safety data sheets are kept in the laboratories for the safe handling of chemicals. Hazardous chemical waste management is done effectively in the SIT campus following the provisions of the SIT-Chemical Safety Manual.

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

7.1.4 Water conservation facilities available in the Institution:

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

Response: A. Any 4 or all of the above

File Description	Document
Geotagged photographs / videos of the facilities	View Document
Any other relevant information	View Document
Link for any additional information	View Document

7.1.5 Green campus initiatives include:

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

Response: A. Any 4 or All of the above

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

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

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

Response: A. Any 4 or all of the above

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

7.1.7 The Institution has disabled-friendly, barrier free environment

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

Response: A. Any 4 or all of the above

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

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

Response:

The College promotes and follows “Unity in diversity” ideology. The College organizes and

motivates the students to participate in the events through various clubs to develop inclusive environment for tolerance and harmony towards cultural, communal and socioeconomic diversities.

Gender inclusivity

The College conducts Guest lectures, special talks and gender inclusivity programs for all the women to ensure women rights and women safety through Women Empowerment Cell. The cell aims to sow the seed of empowerment among the girl students and women staff in the college by briefing them the women related issues in the society and also guides them to face the upcoming challenges and problems courageously.

Social, Communal and Cultural inclusivity:

The College is actively promoting social responsibilities, national integration and harmony. The College plans activities in nearby villages through NSS and various social service related activities and adult education activities are carried out. Sustained efforts are taken to foster a fruitful relationship between the students and the community. These activities are arranged through one day camps and frequent visits under regular activities.

- **National festivals** are celebrated every year to promote harmony and patriotism among the students. The College organizes Blood donation camps, rallies on social awareness at regular intervals to promote communal and social inclusiveness.
- The college conducts health camps in the nearby villages and the students are involved in organizing the health camps promoting social harmony.
- To promote communal inclusivity, all **religion festivals** are celebrated in our campus. Celebrating cultural or religious festivals in academic institutions is a learning experience and the students get to learn about the festival, the reason for the celebration. The festivals provide an opportunity for students to respect and participate in the events that are not their own. And, they also ensure that the students get an opportunity to showcase their talents.
- The students and faculty members enthusiastically participate in the Thamizhar Thirunal (Pongal) celebrations and foster a harmonic relationship among themselves promoting regional, communal and socio economic tolerance. The Pongal festival is celebrated by all religious community in Tamilnadu and hence it's a tool for communal harmony among the students and faculty members.
- The College conducts **cultural programs** and it provides an opportunity to the students to develop their talents in different forms of arts like music, singing, dance, drama etc. The cultural programs provides harmony among the students with diverse culture, communal, social and economic conditions.

Economic inclusivity

- **Awareness about scholarships, Education loan and educational development activities** are given through Administrative office for all the students.
- **Charity box** is placed at our college canteen sponsored by a private hospital for fund collection to meet medical expenses.
- **Armed Forces Flag Day** is celebrated in our college and fund has been collected for the welfare of the defence people. The armed forces day is observed to honour Indian soldiers, sailors, and pilots. The day also pays tribute to the thousands of men who died for the country.

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

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

Response:

Sethu Institute of Technology undertakes different initiatives by organizing various activities to sensitize students to the constitutional obligation: Values, Rights, Duties and Responsibilities of the citizens. To inculcate these values among the students, we felicitate the following programs:

1. **Red Ribbon Club** is a movement started by the Government of India in schools and colleges through which students will spread awareness on HIV / AIDS. It motivates and guides the student community to extend their kind help towards developing healthy lifestyles, donating blood to all the needy by promotion of regular voluntary blood donation.
2. **National Service Scheme** provides the students an opportunity to understand the community, social and civic responsibilities.
 - The college proudly celebrates Independence & Republic Day to promote patriotism, inculcate values and create awareness on the Rights and Duties enshrined in the Constitution of India.
 - Social awareness Programmes were organized as a preventive measure to create awareness on “Blue whale killer game” and “Dengue fever” to create responsibilities among the students towards a healthy and safe society.
 - Through NSS and RRC, all national festivals are celebrated every year and it develops values among the students and promotes communal and social inclusiveness by organizing blood donation camps, rallies at regular intervals

The SIT Eco Club is a platform on which our students work to contribute to improve their environmental conditions through various programmes like tree plantation, plastic free environment programmes and seed ball programmes. It creates values among the students about their responsibilities on the environment.

1. To create social values **Youth Red Cross** is actively involved in Social activities.
2. The **Rotaract Club** of SIT promotes social values to make the students as responsible citizens.
3. **Yi Yuva Club** organizes programs to inculcate the responsibility of youth in developing the country.
4. To inculcate gender equity among the students, our college **Women Empowerment Cell** conducts programmes like Guest lectures, special talks and gender inclusivity programs for all the women to ensure women rights and women safety especially in cases of domestic violence and personal assault.
5. To promote values about communal harmony, all religious festivals are celebrated in our campus. SIT provides an opportunity to the students to develop talents in different forms of arts like music, singing, dance, drama etc. through the **Fine Arts Club**.

6. The college realizes its responsibility and creates awareness about scholarships, Education loan and educational development activities among all the students.
7. **Charity box** is placed at our college canteen sponsored by a private hospital for fund collection to meet medical expenses and it creates social values among the students.
8. **Armed Forces Flag Day** is celebrated through NSS and funds have been collected for the welfare of the defense people and it promotes patriotism.
9. **Toastmasters Club** helps to develop communication and leadership skills. It's an international platform to equip the students to have contact with the international community to promote friendliness.

File Description	Document
• Details of activities that inculcate values; necessary to render students in to responsible citizens	View Document
Any other relevant information	View Document

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

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

Response: A. All of the above

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

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

Response:

The College celebrates and remembers the great sacrifices of our forefathers on **Independence Day**, by hoisting the national flag followed by activities such as campus cleaning, tree planting etc. Pledges are

regularly taken on the Independence Day.

To commemorate the **Republic Day**, we celebrate it with fervor and pride. It illustrates the importance of the participation of the people in forming the Government and the value of the Indian Constitution. Teachers and students celebrate the Republic Day to stand united in spite of the differences.

World Environment Day is the opportunity for everyone to realize the responsibility to care our Earth and to become agents of change. World Environment Day is celebrated each year on 5th June.

Women's Day is celebrated with enlightening lectures and activities. The day is aimed to create awareness about the rights and privileges of the women. The day also marks a call for action to accelerate gender equity. It also focuses on helping women to gain full and equal participation in global development. The day is celebrated by conducting various competitions to bring out their artistic talents and creative thinking.

National Science Day is celebrated every year on February 28. The basic objective of celebration of National Science Day is to propagate the message of importance of science and its application among the people.

Teachers' Day is celebrated in our Institution on 5th September. It is celebrated in honour of Dr.Sarvepalli Radhakrishnan, who was born on September 5, 1888. Dr.Radhakrishnan who was a Teacher and became India's first Vice President and Second President. Our institution commemorates Dr.Radhakrishnan's birth anniversary by paying tribute to the teachers and gurus on this day.

World Suicide Prevention Day is observed on September 10 each year to promote worldwide action to prevent suicides. Various events and activities are held during this occasion to counsel the students to face the challenges and not to succumb to the thought of suicide.

International Disaster Reduction Day is celebrated on October 13 by conducting the special programmes about the disaster management and disaster reduction techniques to the students. It is also provided an awareness how the disaster like earthquake, pandemic, floods affects the people.

Pongal Celebrations at our Institution is an extraordinary day by enthusiastic participation of students and staff members on that day. The College is decorated with flowers and sugarcane to grace the occasion. The day starts with a lecture on Tamil about Pongal and various programmes are conducted. Sweet Pongal is prepared on this occasion and distributed to all the students.

Engineer's day is celebrated on September 15 to give attribute to the greatest Indian Engineer Dr.Mokshagundam Visvesvaraya. This day is celebrated with various technical and non-technical events.

National Mathematics Day is celebrated on 22 December, Mathematics is the most important subject for many students. Nothing in this world can be developed if one does not understand mathematics. Guest Lectures are organized for the students to celebrate the mathematics in the real life.

File Description	Document
Geotagged photographs of some of the events	View Document
Any other relevant information	View Document
Annual report of the celebrations and commemorative events for the last five years	View Document

7.2 Best Practices

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

Response:

BEST PRACTICE 1 :

1. Title of the Practice – Nurturing social responsibility through club activities.

2. Objectives of the Practice

The College takes efforts to make students and faculty to be aware of their responsibilities towards the societal issues. The Institute is strongly committed to become a socially responsible organization and works to support the community for high standards of social responsibility. The institution takes effort to nurture the social responsibilities among the students. The following are the objectives of the college for Nurturing social responsibility

- To encourage and enable the students to excel in the social services by providing guidance and support.
- To foster an environment for involving in social activities.
- To act as a harbinger of social activities.

3. The Context

Sethu Institute of Technology encourages the students to participate in the activities that promote awareness of the social issues by volunteering through club activities. The college has several clubs and associations like NSS, YRC, Young Indian club, Red Ribbon Club, Rotaract Club, ECO Club, Women Empowerment Cell etc., for promoting social activities. The Students are structured through awareness campaigns on regular time intervals. The participation of the students in those activities that promote the communal harmony and environmental sustenance is being encouraged. The institution also promotes sustainable lifestyles by encouraging the use of environmental friendly products and practices. The institution believes that by instilling these values and providing the opportunities, our students can be developed into morally and ethically responsible citizens.

4. The Practice

At the beginning of the odd semester, the coordinator and volunteers of each club approach the

students for membership drive, explaining and advertising their goals. The club has coordinators who share their objectives of the club and provide guidance for developing healthy attitude towards social responsibility. The club is allocated with a particular time for regular practice and meetings, which happens after the regular classes. Many seminars, awareness programs are organized for the students to create better rapport with the community. The clubs have organized various programs like, tree plantation, rural development, awareness on health, cancer, usage of tobacco, energy conservation programs, right for women in the society, etc.,. The following social attitudes are strongly inculcated among the students through above mentioned club activities.

SOCIAL RESPONSIBILITY:

The Students responsibly volunteer in local community service activities to create a better world.

EMPATHY:

The Students are encouraged to participate in the social projects that improve the lives of the needy.

INSPIRATION:

Inviting guest speakers who speak about the important issues related to social responsibility. The speakers talk about their own experiences and inspire students to be more socially responsible.

SYSTEMATIC:

Organize field trips to the areas where the communal interaction, liability and responsibility are promoted. In this way, students are systemised to learn more about the importance of social responsibility.

PEER GROUP LEARNING:

Social clubs at college often strive to build a strong network by connecting the students with their peer group and keeping them informed about the clubs' activities and events. This makes them to have peer learning.

AVAILING ONESELF:

College social clubs offer students a great opportunity to develop their leadership qualities by availing oneself by means of committing himself for social service.

PERSONALITY DEVELOPMENT:

The above mentioned personality and social development are inculcated among the students through the mandatory course “**Personality and Social Development**” which impacts the factors on individual and group functioning. The involvement of students in the activities addresses importance of personality and social development and their application to real-world contexts. The course draws on qualitative, quantitative, and mixed methods to evaluate the social and personality development of the students.

5. Evidence of Success

- Included Personality and Social development , Skill development course as mandatory courses in R2019 and R2021 curriculum
- Organized Blood Donation Camp and has been awarded as *the best institute in blood donation* continuously for a **period of five years**.
- One of our students got selected for NSS parade to participate in the Republic Day parade for five times in *State Level* and one time in *National Level*.
- Received *the best NSS Program Officer award* in the honour of the social services done by our NSS.
- The NSS coordinators of the college have been awarded as *the best Motivators Award* by the Meenakshi Mission hospital.
- Our institute conducts awareness programs on cancer, health, fire safety to the public and the students.
- Organised and participated in rallies such as tobacco awareness, ban of plastic and voter awareness.
- Under the scheme of *Miyawaki forest, 10,000 trees* were planted throughout the nearby areas, outside the campus. Through the above mentioned program, 1000 trees were planted inside the campus of our college.
- The College-neighbourhood network has been promoted by signing a MoU with Panchayat Presidents of Kambikudi and Kalkurichi Panchyats which consists of 14 villages. Several outreach programs are conducted towards community development and the students are engaged in these community development programs through the NSS.
- A batch of alumni of our college established an NGO named '*Padikattugal*' which is actively involving in various community development activities and they also help the economically weaker students in their education.

6. Problems Encountered and Resources Required

- Due to the large number of students, even with the numerous options, there are untapped talents and potentials of the students.
- Time constraint is a major limitation to conduct various development programs.
- Creating awareness among rural folk remains a huge challenge due to lack of interest, cooperation and support since they are highly resistant to new ideas/changes.
- Involving girl students in social responsibility activities is also difficult.
- Most of the rural folk value employment more than education.
- Since the students are engaged throughout the day in class rooms, extra-curricular activities need to be conducted only after working hours.
- Students participated with zeal and enthusiasm in large numbers for such social activities. It was observed that to arrange and assign tasks to such a large group of students was a challenge.

Notes

The college strives to make students and faculty aware of their responsibilities towards the society. The Students experience the rural lifestyle and understand the social problems of villagers through the camp. The Students are encouraged to enroll and participate in the clubs during the first semester. Each year, an induction program is organized for those who are new to NSS and other clubs. In addition, the college encourages club volunteers to participate in various social activities by providing them with a free vehicle to reach the camp location and also their hometown. These clubs are made up of dedicated students who are willing to share their time, knowledge, and experiences to support and promote the society. Each club is managed by a committee or steering group.

BEST PRACTICE 2:**1. Title of the Practice – Promoting online learning and industry linkage for knowledge and skill enhancement.****2. Objectives of the Practice**

The mission statements of the Sethu Institute of Technology which emphasize the industry based knowledge and skill development are:

- To provide quality technical education to fulfill the aspiration of the student and to meet the needs of the Industry.
- To impart skills leading to employability and entrepreneurship
- To establish effective linkage with Industries

From the mission statement of the College the following objectives of the best practice have been derived:

- To enhance knowledge and skills of the students through effective online educational platforms like NPTEL, MOOC, Coursera etc.
- To provide credits to the students who earn them through online courses by credit transfer facility.
- To cope up with the Industry oriented curriculum that meets the requirements of the industry and incorporates recent technologies in the curriculum.
- To create an environment of research and innovation for the students through curriculum.
- To develop a mentorship program to help the students get advice from industry experts.
- To compile a system for disseminating industry information to the faculty and students.

3. THE CONTEXT:

To promote online and industry designed courses for knowledge and skill development of students in our Institution, a comprehensive system has been created. This includes access to a range of quality- assured learning resources that meet the needs of the students. The College also provides specialized support services such as mentoring, facility for online resources to encourage the students for online learning. Additionally the College developed partnership with leading organizations in the field of education and technology to ensure the students have access to the latest tools and resources available in the market. Through consistent efforts and involvement of the Institute, the relationship with reputed industries is enhanced. Through these initiatives, the College strives to foster an environment that is conducive towards the success of the students in their academic pursuit while simultaneously equipping them for the necessary skills that are required.

4. THE PRACTICE:

The students of Sethu Institute of Technology has been benefited through various self-learning online

courses offered by SWAYAM and other reputed online platforms.

- Online courses provide the students with flexibility in learning, allowing them to learn and develop skills at their own pace and in their own time.
- This helps the students to access knowledge and skill from the experts around the world, broadening the scope of learning.
- The students also can register an additional professional elective course or open elective course from the list of courses available in the curriculum as self-learning courses with the support of online resources.
- The UG students can also select their elective courses prescribed in the PG curriculum with the additional support of online resources.
- The industry designed courses are offered by the department to the students. The industry designed courses are designed with the help of industry experts and also the industry provides necessary training/resources and materials for the courses.
- Credits are assigned based on the number of lecture and practical hours. Credits are assigned for the internship based on the number of days of industrial internship. The credits earned through internship can be used as additional credits.
- Field training in reputed Institutions (or) organizations are organized for the students and the students can earn the credits for the field training.
- The students are involved in innovative project which can be done by the individual and group of students. This can be sent for National/ International level projects contest conducted by the reputed Institution. This promotes the ability of the students to develop start-up industries.
- Credits are also assigned for Rural Development Project which can be taken up by a group of students who can be accompanied by a faculty supervisor to guide them. The projects done by the students are useful to promote village and small industries.
- Faculty members are trained in industry to meet the requirement of students as well as the organization.
- Guest lectures, seminars, workshops and technical Symposiums are continuously conducted with the help of industry experts.
- Industry supported labs are established.
- The online and industry designed courses enhance the technical expertise of faculty and students by signing MoUs with various organizations/industries.
- Industry experts are nominated for Board of Studies and majority of the courses are introduced based on the industrial requirements and expectations.
- The placement cell of our College has been associating with many industries and inviting them for placement in our College.
- The College participates in the AICTE CII survey regularly in order to enhance the industry linkage with our College.

5. EVIDENCE OF SUCCESS:

- Industry designed courses were approved in board of studies of R2019 & R2021.
- MoUs are signed with various organizations to implement the industry needs.
- Around 900 students per year register for the industry designed course and get the benefit of it.
- Approximately 307 online certification courses were done by the students.
- Nearly 350 students per year have undergone internships in various organizations.
- About 450 students are benefited through these course and have replaced their credits.
- The students got placed in reputed industries.

- The Institution organizes various guest lectures with the experts from industries.
- Industry supported lab was established to bridge the gap between industry and academia.
- Industry representatives were included in Board of Studies to incorporate the industry updates in the curriculum.
- The Institution receives high ranking in AICTE CII Survey for Industry Linked Technical Institute

6. PROBLEMS ENCOUNTERED AND RESOURCES REQUIRED:

Establishing relationship and entering into MoU with reputed industries takes at least a year. Follow up activities to retain the partnership becomes a challenging one. Finding slots with industries for student /faculty training during summer and winter vacations and for field visits are becoming difficult. All industries are not ready to pay stipend during internship period for students. Establishment of industry sponsored research laboratory is a constraint for a rural based Institution. Sometimes online courses results in lack of hands-on experience.

7. Notes:

Sethu Institute of Technology offers Knowledge and Skill Enhancement Courses to the students to promote and enhance their technical and skill-based knowledge to increase their employability. These courses help the students to enhance their knowledge and skill from the experts around the world, broadening the scope of learning. Industry designed and online courses help in empowering the students to become industry-ready. These courses also equip the students with the skills-set required for the industry which helps them in building their self-confidence.

File Description	Document
Best practices in the Institutional web site	View Document
Any other relevant information	View Document

7.3 Institutional Distinctiveness

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

Response:

Inculcating innovation and entrepreneurial culture among students:

Globalization has made many higher educational institutions to restructure their educational contents and research activities to inculcate **innovation and entrepreneurial** culture among the students. Many Educational institutions focus on research and entrepreneurship activities to provide a platform for students to network and foster collaborations with successful entrepreneurs. Sethu Institute of Technology has taken several initiatives to motivate the faculty members and students to participate in various research activities, conferences and seminars on innovation and entrepreneurship ideas. Adequate training is also given to the students to develop entrepreneurial traits. The Institute has established **an Institution Innovation Council**

and an Entrepreneurship Development Cell with the following objectives:

- To create entrepreneurial culture among students and local community, to identify, train, motivate and develop “Technocrat Entrepreneurs” for generating wealth and employment of our nation.
- To create awareness and interest among faculty and students through Government projects like MSME, NIAM, Hackathons.
- To create a platform for the young brains to develop their skills and to give proper technological exposure.
- To organize Business plan competitions, Entrepreneurship Awareness Camps, innovation Camps in the college.
- To ensure holistic development and grooms the student to be self confident and independent.

Innovation & Entrepreneurship through IIC:

Embedding innovation in the campus life brings a strategic transformation and helps to do things innovatively in their interested field. The Institution constantly strives to incorporate innovation for imparting quality education

- To motivate, support and mentor students for identification, development and commercialization of their innovative ideas from conceptual stage to start ups.
- To give opportunity to prospective students to bring out innovative ideas through competitions and brainstorming.
- To explore innovative and creative thoughts, ideas, or concepts from students, research scholars, faculty members from various domains of society as well as industry.

The focus of **IIC** is to encourage inspire and nurture young students by supporting them to work with new ideas and transform them into prototypes. **IIC** promotes innovation by identifying, mentoring, nurturing innovative and entrepreneurial potential of students and transforming them into start-up entrepreneurs. It facilitates collaboration between the faculty and the students to develop new products and services to launch their business. Also encourages the students to work on projects, share ideas and provide feedback on each other’s work. Sethu Institute of Technology conducts various innovation and entrepreneurship-related activities such as periodic workshops/ seminars/ interactions with entrepreneurs, investors, professionals and create a mentor pool for student innovators. It also creates an Innovation portal to highlight innovative projects carried out by Institution’s faculty and students.

Entrepreneurship culture through EDC.

Government organizations are becoming aware that in order to retain development and raise a nation's economy, people must be inspired and instructed to think creatively and to continuously develop innovative products and solutions. The college established **Entrepreneurship Development Cell** to inculcate the spirit of ‘Entrepreneurship’ among the students. The Entrepreneurship Development cell of the institution is actively organizing various activities every year to inculcate Entrepreneurship culture among students. It is not only for the benefit of the students but also for the local community, with the purpose of inculcating the spirit of ‘Entrepreneurship’ in youth and promoting micro enterprises for the most educationally, economically and industrially backward rural region.

Alumni (who are entrepreneurs / occupying responsible position at industries) are called for interaction to enrich the student's knowledge on field practices. Entrepreneurship programmes for the students enhance the social awareness and knowledge wealth of the rural based younger generation. The students leading themselves to create jobs rather than being job seekers, and in the long term effect, graduated unemployed will be reduced.

- EDC creates an environment for self-employment and entrepreneurship development through formal and non-formal programmes.
- It fosters better linkages between industries, institutions and other organizations engaged in promoting small and medium enterprises.
- This cell develops management personnel at appropriate levels for the non-corporate and unorganized sectors like education, rural development, small-scale industry etc.
- It enhances the social awareness and knowledge wealth of the rural based younger generation.

Innovation and Entrepreneurship culture through Competitions.

The Institution acts as a bridge between the students and Government to develop the global capabilities to solve local issues and nurture innovative individuals to complement the Government efforts. Innovations in education include internationalization, knowledge delivery through IIC & EDC.

- The institute provides project-based studies in many disciplines, where newly enrolled students can establish and pursue their own projects throughout their studies.
- After completing their academic programs, participants might continue to work on their proposals through several schemes' creative idea development programs.
- Institution conducts the training programs on various aspects of entrepreneurship relevant to industries and need of society.
- The following contest have been conducted in our institution to inculcate the innovation and entrepreneurship culture as follows,
 - Faculty Research Innovative contest
 - Student Prototype Design Contest
 - Student Prototype and Product Design Contest

Awards for Innovation & Entrepreneurship

Many Proposals have been sent to various bodies such as MSME, SIH with majority of students and faculty participation and won cash awards.

- In all India level, Sethu institute of technology has been sanctioned the highest number of innovative projects with a total grant of **Rs 1, 00,50,000/-**.
- Our college has received **Rs. 25 lakhs from RKVY- RAFTAR**, Ministry of Agriculture and Incubated by National Institute of Agriculture Marketing (NIAM – Jaipur).
- Three innovative projects have received **Rs 2 lakhs** each from **EDII** under IVP.
- Awarded **Rs.10 lakhs** under the **DST – Lockheed IIGP 2.0-University** challenge.
- Won first prize with **Rs. 1.75 lakh** cash award in **Smart India Hackathon 2022**.

- Won **H- Social Creator award** with the grant of **Rs. 15 Lakhs** from **Hyundai Motor India**.
- Bagged many awards from **TNSI Innovation** contest.
- Won **PLA Blockathon** contest award of **Rs. 1 Lakh** with **International Internship at Dubai**.
- Effective projects are in progress under **Unnat Bharath Abhiyan Scheme**.
- **116** number of teams participated in internal **Idea Hackathon** with **696 students**.
- Around **13** number of Patents has been granted for faculty and students.

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Any other relevant information	View Document
Appropriate web in the Institutional website	View Document

5. CONCLUSION

Additional Information :

The College is marching towards achieving the vision of the college to promote excellence in the technical education and scientific research for the benefit of the society. The College is also having an aim to become a University of excellence in course of time. For achieving these aim the college has been already conferred with Autonomous status in the year 2012 by the University Grants Commission (UGC), New Delhi. The College has been maintaining quality in all areas of education activities and also various programs have been accredited by National Board of Accreditation. In order to promote research activities, the most of the departments have obtained Research Centre status from the Anna University. The College is also giving priority for research, innovation and start-up initiatives to achieve excellence in research. Many faculty and students have been awarded for their innovative ideas which are beneficial for the society.

As per the NEP 2020, the College is keen to promote Multidisciplinary learning among the students. The College has started several programmes in emerging areas as per the guidelines of AICTE. The NEP policy has stipulated the procedure and steps to become a University by maintaining quality of the Institution. The College will fulfil the vision of the institution by meticulously following the guidelines given in the NEP 2020 to become a University. The College will succeed in its endeavour through quality sustenance and quality enhancement.

Concluding Remarks :

The College strives hard to bring excellence in technical education and scientific research & innovation. The quality of the education process is continuously monitored and improved through effective quality assessment and assurance process. The College follows Outcome Based Education process by stipulating the outcomes for the programmes and courses. The attainment of these outcomes are properly assessed and improvements are made to maintain quality. The College realizes the responsibility to train the students through skill and personality development for employment. Hence, several skill development programmes, communication skill programmes, soft skill programmes are conducted to equip the students for their career. The College has an effective linkage with industries for organizing guest lectures and inviting the industries for placement. The students are made aware of their social responsibility and various kinds of societal activities are conducted by the College. The students are also encouraged to do projects related to social issues. The College understands that the faculty members are the backbone of the Institution. The College provides necessary training through Faculty Development Programmes and encouragement to enrol in online courses in the emerging areas.

In summary, the College endeavours to produce competent professionals and contributing citizens by providing quality education and inculcating moral values.

6.ANNEXURE

1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification																				
3.7.1	<p>Number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work</p> <p>3.7.1.1. Total number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work</p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>569</td> <td>772</td> <td>640</td> <td>354</td> <td>570</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>223</td> <td>320</td> <td>338</td> <td>171</td> <td>249</td> </tr> </tbody> </table> <p>Remark : Input edited as per the supporting documents</p>	2021-22	2020-21	2019-20	2018-19	2017-18	569	772	640	354	570	2021-22	2020-21	2019-20	2018-19	2017-18	223	320	338	171	249
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2021-22	2020-21	2019-20	2018-19	2017-18																	
223	320	338	171	249																	
5.3.1	<p>Number of awards/medals won by students for outstanding performance in sports/cultural activities at inter-university/state/national / international level (award for a team event should be counted as one) during the last five years.</p> <p>5.3.1.1. Number of awards/medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) year - wise during the last five years.</p> <p>Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>53</td> <td>108</td> <td>97</td> <td>35</td> <td>80</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1"> <thead> <tr> <th>2021-22</th> <th>2020-21</th> <th>2019-20</th> <th>2018-19</th> <th>2017-18</th> </tr> </thead> <tbody> <tr> <td>44</td> <td>22</td> <td>30</td> <td>34</td> <td>80</td> </tr> </tbody> </table> <p>Remark : Input edited as per the supporting documents.</p>	2021-22	2020-21	2019-20	2018-19	2017-18	53	108	97	35	80	2021-22	2020-21	2019-20	2018-19	2017-18	44	22	30	34	80
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2021-22	2020-21	2019-20	2018-19	2017-18																	
44	22	30	34	80																	
6.3.4	<p>Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course).</p> <p>6.3.4.1. Total number of teachers attending professional development Programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development</p>																				

Programmes year wise during last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
85	141	126	124	105

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
71	141	126	124	105

Remark : Input edited as per the supporting documents.

2.Extended Profile Deviations**Extended Profile Deviations**

No Deviations