

# FOR 2<sup>nd</sup> CYCLE OF ACCREDITATION

# SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY

KUTTATHU PATTI VILLAGE, SINDALAGUNDU POST, PALANI ROAD, DINDIGUL 624002

www.ssmiet.ac.in

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# Submitted To

# NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

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# 1. EXECUTIVE SUMMARY

# 1.1 INTRODUCTION

SSM Group founded in 1981 by the Late Mr. S. Chennimalai Gounder, the SSM Group is one of the largest textile groups in South India with interests in cotton yarn, knitted and woven fabric and engineered steel products. While the operations of the group were initiated with establishing Sri Shanmugavel Mills (P) Limited in 1981 with an installed capacity of 24,640 spindles, over the years, the group has expanded its operations and diversified into manufacturing and sale of products such as combed cotton yarn, compact yarn, OE yarn, knitted fabric, and woven fabric. As of March 31, 2017, the group has an installed capacity of 4,59,360 spindles, 11,840 rotors, 230 looms and 361 knitting machines manufacturing products across the textile value chain. The group also has 229 windmills with a capacity to generate 175.5 MW power.

Sri Shanmugavel Mills (SSM) is one of the leading business houses in Textile Industry in Dindigul District for over 40 years. S. Chennimalai Gounder Charitable Trust, Tirupur is administrated by the families of SSM Group of Mills, Dindigul.

SSM Group's strong desire to offer world-class high quality Engineering Education has led to the launch of SSM Institute of Engineering and Technology at Dindigul from the academic year 2011-2012. The Trustees are optimistic about SSMIET to be a great landmark in the history of higher education in the district of Dindigul.

The Institution is approved by AICTE and is affiliated to Anna University, Chennai. Currently, SSMIET offers 4-year undergraduate Engineering programmes with 07 B.E. and 03 B.Tech. undergraduate programmes. The overall management of the Institution is bestowed with the Governing Council under the able leadership of Shri.K. Shanmugavel, Trustee as the Chairman of the Governing Council. SSMIET is accredited by NAAC during 2018-2019 for 5 years with B++ grade and valid till February 2024. The departments of Electronics and Communication Engineering, Electrical and Electronics Engineering, and Mechanical Engineering is accredited by NBA and valid till May 2025. Out of 4 eligible departments 3 departments have been accredited by NBA.

Vision

#### VISION OF SSMIET

# **VISION**

To inculcate strong knowledge of engineering among the students to excel in their domain through a standard of excellence in learning, research and transform them to face challenges and cater to the needs of the society by imparting competent technical and entrepreneurial skills with human values and ethics.

Mission

MISSION OF SSMIET

**MISSION** 

To encourage students to become self-disciplined individuals through appropriate teaching learning process.

To empower students by providing conducive environment to develop them as best professionals and responsible citizens.

To provide conceptual knowledge that supports design and development of new products and sustainable development.

To maintain a healthy relationship with industries by establishing centers of excellence for technological training and product development.

# 1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

# **Institutional Strength**

# Strengths:

- Supported by SSM Group mills which is renowned for its quality and state-of-the-art of its kind in national and international level.
- Extensive eco-friendly campus with the excellent infrastructure and located in a diplomatic environment.
- Qualified, dedicated and competent faculty members.
- NAAC accredited institution with grade B++ from 2019-2024.
- NBA accredited UG programs Departments of ECE, EEE and Mech. Engg
- Academic council comprising members from highly renowned institutions and the experts from the industries is established for all the departments to guide the respective department.
- Department advisory committee has been framed for all the departments with academic experts from renowned institution and industry experts from core industry of the respective domains.
- A "SSMIET Model" is developed and implemented for effective product development of the students. This model will also enhance the design thinking, critical thinking and innovation qualities of the students
- Well-equipped Teaching-Learning system supported with good laboratory facilities.
- Faculty members are supported and encouraged to pursue their research works, online MOOC certification courses.
- Non-teaching staff members are encouraged to do the skill development courses.
- Students are profiled and guided with effective mentoring and counselling system.
- Technology training by the industry experts is provided to all the students in latest technology trends in every semester to meet the industry demands.
- Provision for personality development and career improvement of the students through co-curricular and extra-curricular activities.

#### **Institutional Weakness**

#### Weaknesses:

• The institution has no student representation from other states, leading to a less comprehensive learning

atmosphere.

- In the institution, most of the students are from rural background and they are wishing to go for placements rather than higher studies.
- Only meager number of Consultancy works is only available in the institution and it has to be improved.
- Improvement in receiving the research grants from external funding agencies is required.

# **Institutional Opportunity**

# Opportunities:

- More number of MoU's with industries to support the Industry Institute Interactions.
- Networking with organisations like CII, Technical societies of the respective departments and Government organisations like MSME, Startup India, TN Startup and other agencies.
- Setting up of incubation centers and start-ups are encouraged.

# **Institutional Challenge**

# Challenges:

- Students showing less interest in the preparation for competitive examinations.
- Association with international institutions and organizations.

# 1.3 CRITERIA WISE SUMMARY

# **Curricular Aspects**

SSMIET provides the right learning opportunity for the students to make them industry ready engineers. The SSMIET follows the curriculum prescribed by the Anna University, Chennai.

- Choice Based Credit System (CBCS) introduced in 10 UG programs and 2 PG programs under the Regulations of R-2017 and R-2021.
- SSMIET adopts Outcome Based Education (OBE) and to achieve the same Program outcomes (POs), Course outcomes (COs), Program Specific Outcomes (PSOs), Program Educational Objectives (PEOs) have been well-defined for all the courses.
- Multidisciplinary/inter-disciplinary activities have been improved among the students by Professional Electives, Open electives, Mandatory Courses with single-credit is available in curriculum.
- Technology training by the industry experts is conducted every semester to train the students in Multidisciplinary/inter-disciplinary levels, experiential learning and also to meet their employability skills as per the industry demands.
- The Institution has provided 60 Value Added Course (VAC) to students for developing skills to meet the industry demands.
- About 55% of students participated in Certificate courses and VAC

- Institution is sensitive to gender, environmental issues, human values and professional ethics and Anna University has courses on the same.
- Departments organize Industrial visit, Implant Training, Guest lectures, Symposium, Seminars, Workshops, Placement, and Training etc.
- About 45% of students have undertaken the field projects and internship every year
- The IQAC academic coordinator monitors and assists the faculty members for effective curriculum delivery
- Institute invites suggestion and feedback from students, teachers, employers, and Alumni regarding the curriculum and institution ensure its availability in the website.
- The Institution abreast the faculty members through refreshers' courses, FDP, Seminars, Guest Lectures and Workshops

# **Teaching-learning and Evaluation**

SSM Institute of Engineering and Technology (SSMIET) has embraced the Outcome-Based Education (OBE) model to drive its Teaching, Learning, and Evaluation (TLE) activities, focusing on enriching the knowledge and skills of learners. Through continuous upgrading, the institution ensures the quality of education, aiming to equip students effectively. The academic process caters to a diverse range of learners while maintaining a commitment to equity. The identification of slow and advanced learners is based on performance metrics. Slow learners receive additional support through remedial classes, open-book assignments, and tutorial classes. Meanwhile, advanced learners are provided with opportunities for excellence through specialized training programs. They are also motivated to excel in competitive examinations and pursue higher education in overseas studies. Additionally, they can earn credits through NPTEL/Swayam online courses and internships via fast-track system. To enhance the overall learning experience, the institute employs student-centric methods such as Experiential Learning (field and industrial visits, internship training), Participative Learning (Participation of inter institute events, workshops, guest lectures and value added courses) and Problem solving methodologies (Final year project, industrial projects, mini projects). These approaches supplement traditional classroom teaching, creating a well-rounded educational environment. ICT-enabled tools play a crucial role in facilitating an effective teaching and learning, aligning with modern educational practices. By combining OBE principles with diverse learning methodologies and technological integration, SSM Institute of Engineering and Technology is dedicated to provide a holistic and adaptable educational experience for its students.

# Research, Innovations and Extension

SSMIET's activities and attainments in research, innovation, and community engagement has successfully acquired grants from both government and non-governmental agencies for various research projects and endowments worth of Rs.19,01,000/-. This financial support has been instrumental in advancing the research capabilities of the institution.

The institution has established a conducive environment for innovation, incorporating the Indian Knowledge System. This includes raising awareness about Intellectual Property Rights (IPR) and setting up an IPR cell, as well as establishing an Incubation Centre. These initiatives facilitate knowledge and technology creation and transfer which leads to the publication of 29 patents in the name of faculty and the students. At present, SSMIET is encouraging the publication of the patents in the institution name.

A significant number of 130 research papers have been published by the faculty members in journals recognized by the UGC CARE list and 117 research papers in none UGC CARE list. This indicates a strong emphasis on research and scholarly activities within the institution.

The faculty members have also contributed to the academic community by publishing 158 books chapters in edited volumes, and papers in both national and international conference proceedings. This diverse range of publications underscores the institution's commitment to contributing to academic discourse.

The extension activities conducted by the institution have had a noticeable impact on the neighboring community. These activities have not only addressed social issues but have also played a crucial role in the holistic development of students. The institution has received awards and recognitions for these extension activities from government and recognized bodies, highlighting their effectiveness and reach.

Through various channels like NSS, NCC, Red Cross, and YRC, the institution has conducted numerous extension and outreach programs. These programs have been instrumental in extending the institution's resources and expertise to benefit the wider community.

The institution has established around 35 multiple Memoranda of Understanding (MoUs) and collaborations. These agreements cover various academic activities including internships, field trips, on-the-job training, and research. These partnerships enhance the educational and professional opportunities available to students and faculty, fostering a global academic network.

# **Infrastructure and Learning Resources**

The institute adheres to the norms and guidelines set forth by the "All India Council for Technical Education" (AICTE) when it comes to establishing and improving infrastructure that is conducive for effective teaching and learning, taking into consideration the student strength in various disciplines. The institution is committed to a continual expansion and enhancement of its infrastructure, with a forward-looking approach to anticipate future needs. Across all departments, the institute ensures that the necessary infrastructure is in place to accommodate the growing demands, including well-equipped, ventilated, spacious classrooms, seminar halls, laboratories, and ample space for hosting a wide range of academic activities.

For the proper utilization of Information and Communication Technology (ICT) in the classroom, facilities like LCD Projectors, Wi-Fi connectivity is available. Video-conferencing hall, smart classroom promotes collaborative learning and facilitate effective teaching and learning. SSMIET places a strong emphasis on sports and physical education such as GYM, Yoga, and athletics, ensuring that the students receive comprehensive guidance and training in these areas.

SSMIET invests in infrastructural development and augmentation which is essential for the growth and improvement. It helps to create a conducive learning environment and provides students and faculty with the necessary facilities and resources.

SSMIET has an automated library with digital facilities and access to e-resources and journals. A digital library, accessible via Intranet and Wi-Fi connectivity has been provided to the students. This ensures that students receive hands-on experience with cutting-edge technology, preparing them for their future careers. Efforts are made to keep student-computer ratio relatively low to ensure that students have adequate access to technology for their studies and research.

Institute allocates a significant portion in the budget for the maintenance of classrooms, laboratories, libraries, computer centers, sports activities, administrative offices, and other infrastructure. Academic support facilities may include resources for faculty development, research support, student services, and technology infrastructure to enhance the learning experience.

# **Student Support and Progression**

SSMIET provides its extensive support to the students throughout their academic journey. Students support is done in various levels as follows:

#### a. Admission

- Streamlined admission process is followed to ensure the accessibility for all eligible students.
- To assist the students and parents by giving comprehensive and appropriate information cum guidance about different courses offered by the institution.
- A detailed flowchart about the TNEA counselling process is given to all the needed ones.

# b. Government / Non- Government Scholarship

- Students are supported to obtain the first graduate certificate, merit scholarship, and other applicable scholarships.
- Transparency in the merit scholarship awarding process is ensured.
- Continuous efforts have been made to expand scholarship opportunities through collaboration with external organizations.

#### c. Skill Enhancement Initiatives

- Events and training programs are conducted periodically to develop various skills both academic and non-academic.
- Organized workshops, seminars, and training sessions to enhance employability skills.
- Skills required by the industries are provided to get jobs in the job market.

# d. Grievances Redressal System:

- A robust mechanism is followed for addressing students' concerns and grievances.
- Timely and fair solution to the issues through a structured grievance redressal process.
- Regular feedbacks are obtained to improve support services.
- Well-structured mechanism is available to resolve the issues.

SSMIET enriches the student's progression in the following areas:

# a. Placement and Higher studies

- On campus recruitment drives with leading companies are conducted to facilitate the placement process.
- Career Counseling has been provided through resume building, and interview preparation support.
- Establishing strong ties with industry partners. For internships and placements, a strong tie is

established with industrial partners.

• Seminar are conducted to make avenue on challenges at higher education.

# b. Awards / participation of students

- Platforms are provided for students to showcase their talents in sports, arts, literature, and other non-academic areas.
- Students' involvement in sports and cultural events are recognized.

#### c. Alumni Contribution

- An active alumni association is functioning with members from various academic years.
- Regular reunions, networking events, and professional development activities are organized.
- Alumni are invited to provide inputs in advisory boards, strategic planning and etc.

# Governance, Leadership and Management

SSMIET is administered by active leadership of the Governing Council members with the vision of inculcating knowledge of engineering for the students to excel in their domain with human values and ethics. This Governing Body delegates authority to the principal, who further allocates responsibilities among different levels of faculty and staff. Vision of the administrators is accordingly implemented by the Internal Quality Assurance Cell (IQAC). IQAC is intended at incessant quality enhancement for attaining academic excellence. IQAC conducts periodic reviews, internal and external audits. Governing Council and IQAC of SSMIET plays an essential role in recommending, reviewing, and supporting new initiatives for continuous quality improvement.

Deans, Heads of Departments, Coordinators of various committees, and faculty representatives actively contribute to shaping institutional policies and ensuring their effective implementation. These policies cover a wide range of academic standards, code of conduct, admission procedures, financial regulations, safety protocols, and more. Adhering to these policies helps to maintain order, fairness, and the overall integrity of the educational institution. This inclusive and collaborative approach highlights the institution's dedication to shared governance, emphasizing input from a diverse range of individuals in decision-making processes.

Various committees comprising all stakeholders work towards the fulfilment of the vision. Decentralization and Participative management are ensured by divesting responsibilities both at the Institution as well as Department levels. The Institution has well-defined policies for recruitment, career advancement, and performance appraisal. The institution has implemented various welfare measures for both teaching and non-teaching faculty members and a Performance Appraisal System (PAS). These measures reflect the institution's commitment to the well-being and professional development of its employees. In terms of welfare measures, the institution provides a range of benefits aimed at enhancing the quality of work-life of employees. This may include health and wellness programs, financial assistance, professional development opportunities, and overall welfare of the faculty.

Financial management is crucial for any institution. The organization has implemented strategic measures to effectively mobilize and utilize resources and funds from various sources, emphasizing both government and non-government organizations. Financial accountability is a top priority, upheld through regular internal and external financial audits.

#### **Institutional Values and Best Practices**

SSMIET is committed to fostering environmental consciousness and sustainability while championing inclusivity through Divyangjan-friendly initiatives. Our campus proudly incorporates a solar plant and energy-efficient LED bulbs, demonstrating a dedication to alternative energy sources and conservation. We actively manage diverse waste streams, prioritize water conservation, and spearhead green campus initiatives. Additionally, our commitment extends to creating a disabled-friendly, barrier-free environment, ensuring equal access for all.

Psychometric assessments are systematic tools employed to delve into an individual's attitudes, abilities, and interests, offering valuable insights into their personality traits. Students are categorized into four groups: full attention, moderate attention, minimum attention, and self-motivated.

Mentoring is a supportive and nurturing relationship between an experienced individual (mentor) and a less experienced person (mentee). At SSMIET, a mentoring system is in place where each group of 15 students is assigned a mentor. This arrangement ensures the effective facilitation of the mentoring process, promoting a supportive and conducive learning environment for all students involved

SSMIET encourage students to practice Internships, technology training, and student projects in core, health care, and rural technology sectors which aim to provide practical, hands-on experience to students while addressing critical societal needs. Based on the above practice, students are able to develop prototype which involves creating a preliminary version of a product, allowing designers and engineers to test functionality, design elements, and user experience. It helps identify flaws and areas for improvement before moving forward with mass production and to create a unique value proposition.

(SSMIET) represents a constructive initiative aimed at fostering a robust link between academia and the professional sector. These projects serve as a bridge for students to tackle genuine industry challenges, aligning their expertise with the contemporary demands and issues encountered by various sectors. Establishing partnerships with industry stakeholders not only provides students with valuable networking prospects but also facilitates meaningful interactions with professionals, potentially opening doors to future employment opportunities.

Student Project Selection, Identification of Industry Mentorship, and Resource Allocation for their project, and Progress Monitoring through supervisor, Implementing Feedback Mechanism, Preparing Project report, Project Showcases, Evaluate Project Impact, Continuous Improvement, Recognition and Awards

# 2. PROFILE

# 2.1 BASIC INFORMATION

Name and Address of the College				
Name	SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY			
Address	Kuttathu Patti Village, Sindalagundu Post, Palani Road, Dindigul			
City	Dindigul			
State	Tamil Nadu			
Pin	624002			
Website	www.ssmiet.ac.in			

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	D Senthil Kumaran	0451-2448801	7373707003	0451-244885 5	ssmietdgl@gmail.c
IQAC / CIQA coordinator	K.vInoth Kumar	0451-2448843	9787367067	0451-244885 5	iqacssmiet@gmail.

Status of the Institution	
Institution Status	Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minroity institution	No

<b>Establishment Details</b>	

Page 10/87 07-02-2024 10:28:22

State	University name	Document	
Tamil Nadu	Anna University	View Document	
Tamil Nadu	Anna University	No File Found	

Details of UGC recognition		
<b>Under Section</b>	Date	View Document
2f of UGC	25-07-2023	View Document
12B of UGC		

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)					
Statutory Regulatory Authority	Recognition/Appr oval details Instit ution/Department programme	Day,Month and year(dd-mm- yyyy)	Validity in months	Remarks	
AICTE	View Document	02-06-2023	12		
AICTE	View Document	02-06-2023	12		
AICTE	View Document	02-06-2023	12		

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

Location and Area of Campus					
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.	
Main campus area	Kuttathu Patti Village, Sindalagundu Post, Palani Road, Dindigul	Rural	25.3	40314	

# 2.2 ACADEMIC INFORMATION

Details of Pro	Details of Programmes Offered by the College (Give Data for Current Academic year)					
Programme Level	Name of Pro gramme/Co urse	Duration in Months	Entry Qualificatio n	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BE,Automob ile Engineering,	48	XII	English	30	0
UG	BE,Civil Engineering,	48	XII	English	30	23
UG	BE,Compute r Science And Enginee ring,Comput er science and Engineering cyber security	48	XII	English	60	60
UG	BTech,Comp uter Science And Enginee ring,Informat ion Technology	48	XII	English	60	60
UG	BE,Compute r Science And Enginee ring,Comput er Science and Engineering	48	XII	English	60	57
UG	BTech,Comp uter Science And Enginee ring,Artifical Intellegence and Data Science	48	XII	English	60	60
UG	BTech,Comp uter Science And Enginee ring,Comput	48	XII	English	60	60

	er Science and Business Systems					
UG	BE,Electrical And Electronics Engineering,	48	XII	English	30	30
UG	BE,Electroni cs And Com munication Engineering,	48	XII	English	120	120
UG	BE,Mechanic al Engineering,	48	XII	English	30	29
PG	ME,Electroni cs And Com munication E ngineering,C ommunicatio n System	24	UG	English	24	3
PG	ME,Mechani cal Engineeri ng,Thermal Engineering	24	UG	English	12	2
Doctoral (Ph.D)	PhD or DPhil ,Electronics And Commu nication Engineering,	36	PG	English	18	9
Doctoral (Ph.D)	PhD or DPhil ,Mechanical Engineering,	36	PG	English	13	0

Position Details of Faculty & Staff in the College

	Teaching Faculty											
	Profe	Professor			Asso	ociate 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/Soci ety or Other Authorized Bodies	10				9				74			
Recruited	6	4	0	10	8	1	0	9	37	37	0	74
Yet to Recruit	0			1	0				0	1	1	

	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				6					
Recruited	3	3	0	6					
Yet to Recruit				0					

07-02-2024 10:28:23

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				24				
Recruited	22	2	0	24				
Yet to Recruit				0				

# Qualification Details of the Teaching Staff

	Permanent Teachers									
Highest Qualificatio n	Professor		Associate Professor			Assistant Professor				
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	0	0	0	0	0	0	0	0	0	0
Ph.D.	6	4	0	8	1	0	8	2	0	29
M.Phil.	0	0	0	0	0	0	4	10	0	14
PG	0	0	0	0	0	0	25	25	0	50
UG	0	0	0	0	0	0	0	0	0	0

	Temporary Teachers									
Highest Qualificatio n	Professor		Associate Professor			Assistant Professor				
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/M CH	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 Qualificatio n	Professor		Associate Professor			Assistant Professor					
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total	
D.sc/D.Litt/ LLD/DM/M CH	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	Male	Female	Others	Total			
engaged with the college?	0	0	0	0			

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

07-02-2024 10:28:23

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	265	0	0	0	265
	Female	237	0	0	0	237
	Others	0	0	0	0	0
PG	Male	2	0	0	0	2
	Female	3	0	0	0	3
	Others	0	0	0	0	0
Doctoral (Ph.D)	Male	1	0	0	0	1
	Female	8	0	0	0	8
	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	59	59	59	53
	Female	19	19	16	16
	Others	0	0	0	0
ST	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
OBC	Male	638	695	680	907
	Female	395	344	510	512
	Others	0	0	0	0
General	Male	6	8	25	23
	Female	6	8	10	5
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total	·	1123	1133	1300	1516

# **Institutional preparedness for NEP**

1. Multidisciplinary/interdisciplinary:

The main objectives of the National Education Policy pertaining to engineering education are Promoting Multidisciplinary Learning, aligning curriculum with industry demands and technological updations, Emphasis on Research and Development, Enhancing Teaching Quality, Industry Collaboration, Skill Development, Promoting Ethical and Social Responsibility. Considering the National Education Policy and to facilitate multidisciplinary/interdisciplinary activities among the students as well as the teaching fraternity, SSMIET has introduced a framework called "SSMIET Model". The institution's Innovation Council of SSMIET integrates the various industries.

Based on the SSMIET Model, all the students are encouraged to undergo internships in industry for a minimum of 15 days. Technology training in various domains is conducted every semester by industry experts. Furthermore, students can do project work in their core domain, projects based on rural technologies, health care and societal needs. Students can also identify projects from the real-time problem statements provided by the industries and students are supported by the faculty member and industry expert member as their guide. The outcome of these projects would be prototypes and products. Thus, this model triggers the design thinking and ideation of fresh minds as well as the faculty members and provides a platform for multidisciplinary/interdisciplinary activities. Further, faculty members have to attend a minimum five-day Faculty Internship Program (FIP) in the manufacturing industry. By this, a faculty member can get exposure to the various latest technologies implemented in the industry and also understand the multidisciplinary/interdisciplinary activities. In addition to this model, professional elective courses and open elective courses have been provided to students in multidisciplinary/ interdisciplinary fields in the regular curriculum. Students have the liberty of selecting elective courses from other programs through open elective courses. Accordingly, SSMIET consistently encourages a multidisciplinary/interdisciplinary approach to foster creativity, innovation, and problem-solving skills. Inspires research and product development addressing the societal needs, healthcare, agricultural and rural progression activities. Improving the quality of teaching by implementing faculty development programs and providing resources for better learning outcomes. Strengthening ties between SSMIET and industries to facilitate practical exposure, and internships for students. Thus, SSMIET consistently contributes to national development based on National Education Policy.

2. Academic bank of credits (ABC):

The Academic Bank of Credits (ABC) aims to provide students with increased flexibility and multiple entry-exit points within the higher education system. This enhances the Accumulation and Transfer of Credits, Multiple Entry-Exit Options, Flexibility and Customization, Ease of Mobility and Promotion of Continuous Learning The

implementation of the Academic Bank of Credits is intended to create a more dynamic and inclusive higher education system, providing learners with greater autonomy and flexibility in their educational pursuits. SSMIET has shown its interest towards ABC and an account has been created in the National Academic Depository in the name of the institution. Further processes are in under progress and the autonomous status for our institution is awaited. After attaining the autonomous status, the academic Bank of Credit will be implemented accordingly.

# 3. Skill development:

SSMIET emphasizes skill development by focusing not only on technical knowledge but also on holistic skill development to produce well-rounded professionals capable of addressing real-world challenges and contributing effectively to society and the economy by preparing students with a wellrounded set of competencies in several ways and some key aspects focusing includes: • Integration of Multidisciplinary Skills: This integration enhances critical thinking, problem-solving, and communication skills which are vital for a holistic professional outlook. "SSMIET Model" guide the students in this regard. • Practical Training and Hands-on Learning: Emphasizing the practical application of theoretical knowledge, the policy advocates for hands-on learning experiences through internships, industry collaborations, and labcomponent, project-based coursework. This approach helps students develop practical skills and gain realworld exposure. • Industry-Relevant Courses: Technology training and value-added courses based on industry demand and technological advancements of various domains are conducted every semester for the students. This includes incorporating certification by the industry with industry-driven assignments and industrial internships. • Soft Skills Development: Recognizing the importance of soft skills, SSMIET emphasizes the development of communication skills, teamwork, leadership, and interpersonal abilities. Students are trained by professionals through the Department of Placement and Training to participate in activities that enhance these skills to improve their overall employability and professional success. • Entrepreneurship and Innovation: SSMIET promotes entrepreneurship and innovation in education through the Institution's Innovation

Council through activities with CII, MSME and Startup India. It encourages students to explore their entrepreneurial potential, fostering creativity and an entrepreneurial mindset through along with the implementation of the "SSMIET Model". • Ethics and Social Responsibility: SSMIET imparts ethical values and a sense of social responsibility among its students through the activities with Unnat Bharat Abhiyan programs. It encourages the students to consider the ethical implications of their work, as well as the rural societal impact of technological innovations. Elective courses regarding ethics are available in the regular curriculum. • Continuous Learning and Upskilling: SSMIET encourages a culture of continuous learning by providing opportunities for upskilling and reskilling through MOOCs like NPTEL, SWAYAM etc., attending short-term courses conducted by elite institutions, allowing faculty and non-teaching members to stay updated with emerging technologies and industry trends by FIPs.

4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):

National Education Policy emphasizes that students be taught in Indian language, and students should be enriched in our culture. For the same, the mandatory courses with zero credit have been introduced in the R-2021 of Anna University, Chennai. These mandatory courses enlighten the students in Women and Gender studies, Elements of Literature, Traditional practices -Yoga, Ayurveda and Siddha, History of Science and Technology in India, Political and Economic Thought for a Humane Society, Industrial Safety, Disaster management etc. Other than the mandatory courses, Yoga sessions by the experts have been conducted for the physical and mental well-being of all the faculty and staff members of SSMIET. In SSMIET, the traditional method of salutation (folded hands – namaste) is regularly followed by all the faculty members, staff members, and students. Thus, SSMIET not only teaches but also follows the traditional culture and sincerely adheres to the National Education Policy.

5. Focus on Outcome based education (OBE):

The National Education Policy plays a significant role in outcome-based education (OBE). OBE is a framework that centres on defining specific learning outcomes or competencies that students should achieve by the end of their educational program. In alignment with the NEP, here's how OBE is

integrated into our SSMIET: SSMIET comes under the affiliated college of Anna University, Chennai and follows the Regulations and curriculum as prescribed by the University, SSMIET adopts OBE practices by, • Defining Learning Outcomes: SSMIET has articulated clear and measurable learning outcomes like Course Outcomes (COs), Program Outcomes (POs), Program-specific outcomes (PSOs), and Program Educational Objectives (PEOs) for all the programs. These outcomes are properly disseminated in the prominent places of the institution, institution website, student notebooks and lab record notebooks. • Assessment and Evaluation: OBE involves robust assessment mechanisms that evaluate whether students have achieved the specified learning outcomes. Assessment methods of SSMIET include assignments, internal tests, tutorials, projects, presentations, practical demonstrations, and university examinations designed to measure not just knowledge recall but also practical applications. • Continuous Improvement: SSMIET continuously reviews and refines the programs based on the feedback received from the students at the periodical class committee meetings, at the end of every semester, and feedback from various stakeholders, including industry partners, alumni, and parents. SSMIET ensure this iterative process so that the education provided remains relevant and effective. • Student-Centric Approach: OBE places the learner at the centre, focusing on individual student growth and learning outcomes. It encourages personalized learning experiences, enabling students to progress at their own pace while achieving predefined outcomes. By integrating outcome-based education into engineering programs as per the National Education Policy, SSMIET aims to produce graduates who are not only academically proficient but also equipped with the skills, attitudes, and competencies necessary for success in their careers and contributions to society.

6. Distance education/online education:

SSMIET is an affiliated college under Anna University, Chennai. As an affiliated college, currently, the institution has no eligibility to conduct distance or online education. But the preparatory works are in under progress and once SSMIET attains the autonomous status, then the effective

implementation and conduct of distance and online education will be carried out.

# **Institutional Initiatives for Electoral Literacy**

1. Whether Electoral Literacy Club (ELC) has been set up in the College?

Yes. We have an Electoral Literacy Club (ELC) in our Institution annexure with NSS. The primary objective of setting up ELCs in colleges is to engage with and educate the newly eligible voters. College students, often in the age group of 18-21, are at a critical juncture in their lives, and it is the ideal time to introduce them to their electoral rights and responsibilities.

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, We have Students and Faculty coordinators to carry out the various awareness programs. Electoral Literacy Club: Faculty Coordinators: Dr. R. Satheesh Babu, AsP/Maths Dr K. Ganesh, AP/Chemistry Mrs. R. Janani, AP/Maths Student Coordinators: Mr. M. Nagarajan III Mech Mr. M. Kamatchivelan III ECE ELCs provide opportunities for students to take on leadership roles, helping them develop skills in organization, communication, and teamwork. By actively involving college students in the electoral process, ELCs empower the youth to become informed and responsible citizens, capable of making well-informed decisions during elections.

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.

# INNOVATIVE PROGRAMMES AND

INITIATIVES: 1. Voter Registration Camp for the eligible students on the campus. 2. Voter awareness guest lectures conducted for in-house students. 3. By including students from all semesters, ELCs create a diverse and inclusive platform for discussions and activities related to elections. It ensures that knowledge and awareness are spread throughout the college community. FUTURE PLAN: In the forthcoming year, the ELC club can extend their reach to the local community by organizing voter registration drives, awareness campaigns, and even collaborating with local electoral authorities.

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

As instructed by the District Collector Officer, every year our students actively participated in the awareness programs.

advancing democratic values and participation in electoral processes, etc.	
5. Extent of students above 18 years who are yet to be enrolled as voters in the electoral roll and efforts by ELCs as well as efforts by the College to institutionalize mechanisms to register eligible students as voters.	With the support of ELC, our first-year eligible students are motivated to enroll their names in the electoral roll. ELC organized the following activities in the institution. 1. The Voter Awareness Programme was organized on 09.03.2021 2. The Elector Verification Programme was held on 10.09.2019.

# **Extended Profile**

# 1 Students

# 1.1

# Number of students year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
1123	1133	1300	1516	1720

File Description	Document
Upload Supporting Document	<u>View Document</u>
Institutional data in prescribed format	View Document

# 2 Teachers

# 2.1

# Number of teaching staff / full time teachers during the last five years (Without repeat count):

Response: 176

6	File Description	Document
	Upload Supporting Document	<u>View Document</u>
	Institutional data in prescribed format	View Document

# 2.2

# Number of teaching staff / full time teachers year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
86	69	85	104	124

# 3 Institution

# 3.1

# Expenditure excluding salary component year wise during the last five years (INR in lakhs)

2022-23	2021-22	2020-21	2019-20	2018-19
633.59	310.99	207.23	536.43	530.85

File Description	Document
Upload Supporting Document	<u>View Document</u>

# 4. Quality Indicator Framework(QIF)

# **Criterion 1 - Curricular Aspects**

# 1.1 Curricular Planning and Implementation

#### 1.1.1

The Institution ensures effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal Assessment

## **Response:**

SSM Institute of Engineering and Technology is affiliated to Anna University and follows curriculum prescribed by the University. The Institute prepares appropriate academic calendar as per the affiliating University Academic Schedule before commencement of each semester. A committee is constituted by the principal every semester to design the academic calendar of the institution. It incorporates important timelines like commencement of classes, last working day, Holidays, Schedule of Internal Tests, and Commencement of End Semester Examinations. During unavoidable circumstances any changes in the academic schedule if intimated by the University to the college is implemented and is adhered by the Institution.

Our Institution treads through student centred Outcome Based Education where the performance is measured through Course Outcomes (COs), Program Outcomes (POs) and Program Specific Outcomes (PSOs) to attain the Vision of the Institution. The Institution adheres to Choose Based Credit System (CBCS) as prescribed by University Curriculum recommendations. The Institute conducts Induction Programmes and bridge courses for the first year students respectively before commencement of the academic year.

Well planned time-table is prepared by Time-Table Committee accommodating the provisions for mentoring, self-learning and career guidance. Course Committee Meeting is convened by the course coordinator for common courses to prepare Course Plan, Internal Test (IT), Assignments and Evaluation Scheme. An illustrative micro level course plan is prepared with modern teaching pedagogy like Collaborative Learning, Inquiry based Learning, Project based Learning, Flipped/Blended Learning, Peer Learning, Competency based Learning, Experiential Learning etc., by concentrating on learning outcome for individual sessions. One faculty member is allocated for every 15 students to conduct mentoring every week. Laboratory courses are conducted as per the course plan and performances of the students are continually evaluated. Students are motivated to take up Industrial and In-house projects in their area of interest and their performance is periodically reviewed by Review Committee.

Internal Tests are conducted as per the affiliating University guidelines. Slow learners are identified based on the performance in University Examinations and IT, Remedial/Coaching classes are conducted for slow learners. Students' feedback on Teaching Learning Process is collected in the Class Committee meetings and online mode regularly. Class Committee meetings are conducted periodically as per regulating guidelines of affiliating university. The feedback is analyzed and remedial actions are taken for effective curriculum delivery.

Apart from the regular curriculum the departments organize Value added courses, Guest Lectures,

Page 27/87 07-02-2024 10:28:23

Seminars, Webinars, Industrial Visits and In-Plant Training to bridge the gap between academia and industrial requirements. COs, POs and PSOs are evaluated using direct and indirect assessment methods for continuous improvement in curriculum delivery. Internal Quality Assurance Cell (IQAC) strategizes the curriculum delivery process and ensures effective implementation and documentation. Every data related to curriculum delivery like students attendance, IT marks, End Semester results, course materials etc., are maintained in the department for easy harnessing of information.

File Description	Document
Upload Additional information	View Document

# 1.2 Academic Flexibility

## 1.2.1

Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)

**Response:** 60

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

Other Upload Files	
1	<u>View Document</u>

### 1.2.2

Percentage of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

Response: 55.14

1.2.2.1 Number of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five

Page 28/87 07-02-2024 10:28:23

## years

2022-23	2021-22	2020-21	2019-20	2018-19
1106	883	405	799	552

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

# 1.3 Curriculum Enrichment

#### 1.3.1

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

# **Response:**

Professional Ethics, Human Values, Environmental Science and Sustainable development are integrated with the university curriculum. In addition to University Curriculum, our Institute provides Co-curricular and Extra-Curricular activities to elate the gender, moral and cultural behaviour amongst students.

# **Gender Empowerment**

Institute has an active Woman Empowerment Cell through which various activities like Gender Equality, Awareness on Sexual harassment, Self-Awareness, Self Defense, Personal Hygiene, Physical and Mental Strength, Social Security and Woman Entrepreneurship are conducted for enriching the life style of woman faculty and students. The Institute ensures active participation of woman faculty and students in all the statutory and non-statutory committees for promoting Gender Equality. An elaborate celebration of the Women's Day is a prominent activity of the Institution which encompasses several events and competitions to bring out talents in women exhibiting their Confidence, Compassion, Leadership, Togetherness, Mental Strength, Creativity, Skills in Multi-Tasking and Ability in Problem Solving. Events and Competition embracing many tasks ensures to realize their true potential.

#### **Human Values**

Courses on Professional Ethics and Human Values are offered to all the students which inculcate Human Values like Self-Confidence, Character, Empathy, Code of Conduct, Leadership and understanding Global Issues etc., within the students. The faculty members are encouraged to participate in the Programs on Universal Human Values conducted by AICTE. The faculty members in turn promote the Human Values and Ethics among the students through Induction program. Every year the Institute celebrates Days of National and International Importance like Independence Day, Republic Day, Engineers Day, Science Day, Teachers Day etc., in instilling the moral of national, Social and

Educational values.

### **Environmental Education**

As per the syllabus of Anna University, students of all branches get good education pertaining to ecosystems and environment through a course on Environmental Science and Sustainability in the IV semester. It is a comprehensive course encompassing all the aspects of environment like natural resources, biodiversity, pollution, alternate energy sources and human intervention citing the causes and effects. The course throws light on social ethics. The "Go Green" campaign is started in our campus to make a green environment by planting trees in and around the campus, spreads awareness on the harmful effects of polythene and prohibits the usage of polythene bags inside the campus.

Institute also organizes various activities through National Social Service (NSS), Unnat Bharat Abhiyan (UBA), Swachh Bharat Abhiyan and Human League to comprehend to the importance of environment and contribute to the sustainable growth of the nation. Events like Tree Plantation, Awareness programs on Plastic free environment, World Environment Day, Energy Conservation etc., are organized giving due importance to basic societal needs.

It is imperative that the offered curriculum concentrates both on Social and internal behaviour of the students for producing students with humane which is felt very necessary in today's world.

File Description	Document
Upload Additional information	<u>View Document</u>

# 1.3.2

Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year)

Response: 45.33

# 1.3.2.1 Number of students undertaking project work/field work / internships

Response: 509

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

# 1.4 Feedback System

#### 1.4.1

Institution obtains feedback on the academic performance and ambience of the institution from

Page 30/87 07-02-2024 10:28:23

various stakeholders, such as Students, Teachers, Employers, Alumni etc. and action taken report on the feedback is made available on institutional website

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

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

# **Criterion 2 - Teaching-learning and Evaluation**

# 2.1 Student Enrollment and Profile

## 2.1.1

# **Enrolment percentage**

Response: 54.25

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

2022-23	2021-22	2020-21	2019-20	2018-19
291	279	215	291	304

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

2022-23	2021-22	2020-21	2019-20	2018-19
396	396	576	588	588

File Description	Document
Institutional data in the prescribed format	<u>View Document</u>
Final admission list as published by the HEI and endorsed by the competent authority	View Document
Document related to sanction of intake from affiliating University/ Government/statutory body for first year's students only.	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

# 2.1.2

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

**Response:** 67.03

2.1.2.1 Number of actual students admitted from the reserved categories year wise during last five years (Exclusive of supernumerary seats)

2022-23	2021-22	2020-21	2019-20	2018-19
236	212	168	216	225

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

2022-23	2021-22	2020-21	2019-20	2018-19
270	273	353	380	301

File Description	Document
Institutional data in the prescribed format	View Document
Final admission list indicating the category as published by the HEI and endorsed by the competent authority.	View Document
Copy of communication issued by state govt. or Central Government indicating the reserved categories(SC,ST,OBC,Divyangjan,etc.) to be considered as per the state rule (Translated copy in English to be provided as applicable)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

# 2.2 Student Teacher Ratio

# 2.2.1

Student – Full time Teacher Ratio (Data for the latest completed academic year)

Response: 13.06

# 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 and teachers use ICT- enabled tools including online resources for effective teaching and learning process

# **Response:**

In order to enrich the learning experiences of our students, our dedicated faculty members employ a variety of dynamic activities tailored to the specific requirements of the courses they teach. These initiatives are carefully designed to foster a comprehensive understanding of engineering concepts and practical applications. Here is an overview of the diverse activities integrated into teaching approach:

# Field Visits/Industrial Visits

Aligned with the course content, field visits and industrial tours are organized to expose students to practical applications and the industrial environment, enhancing their contextual understanding.

#### **Student Seminars**

Our faculty members organize student seminars, to provide a platform for students to delve deeper into specific topics, enhance their research and presentation skills, and engage them in meaningful discussions.

# **Assignments**

Assignments are regularly given to students to reinforce theoretical knowledge and encourage critical thinking. These tasks also serve as a tool for continuous assessment and feedback.

#### **Virtual Labs**

Leveraging the advancements in technology, virtual labs are incorporated into the curriculum, allowing students to simulate experiments and gain hands-on experience in a digital environment.

# **Mini Projects**

Students are motivated to undertake mini projects to apply engineering principles in real-world scenarios. This approach enhances their practical skills and provides a holistic understanding of the subjects.

## **Model Preparation by Students**

Encouraging students to create models fosters creativity and a deeper understanding of the subject matter. It also promotes teamwork and effective communication.

#### **Tutorials**

Tutorials are conducted to offer additional support to students, clarifying doubts and reinforcing classroom teachings. These sessions provide a more personalized learning experience.

# **MOOC** Courses by Students

Students are encouraged to enroll in Massive Open Online Courses (MOOCs) to broaden their knowledge base and stay abreast of the latest developments in their field.

# Paper Publications and Symposium Participation:

Emphasizing academic rigor, students are motivated to publish articles in both international and national conferences. Symposium participation further hones their ability to communicate subject knowledge confidently.

In the tech-savvy learning environment, faculty members utilize Information and Communication Technologies (ICT). Computers, electronic gadgets, and overhead projectors are employed for content delivery. PowerPoint and video presentations facilitate a clearer comprehension of complex concepts. Mobile applications streamline the distribution of assignments and question banks.

To ensure continuous learning, both faculty and students are encouraged to participate in MOOC courses like NPTEL and SWAYAM. Digital platforms such as Google Meet, Zoom, and Microsoft Teams are utilized for online courses, enabling seamless communication and collaboration. Video conferencing is leveraged for online seminars featuring industry and academic experts.

Smart Board facilities contribute to an interactive learning process, while the students make use of virtual lab facilities provided by prestigious institutions like IITs and NITs. These labs, equipped with computers, enable students to perform virtual experiments and simulations, enhancing their practical skills. Through this comprehensive approach, a well-rounded and effective learning experience can be provided to the students.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

# 2.4 Teacher Profile and Quality

#### 2.4.1

Percentage of full-time teachers against sanctioned posts during the last five years

**Response:** 86.19

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

2022-23	2021-22	2020-21	2019-20	2018-19
95	104	114	115	115

File Description	Document
Sanction letters indicating number of posts sanctioned by the competent authority (including Management sanctioned posts)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

# 2.4.2

Percentage of full time teachers with NET/SET/SLET/Ph. D./D.Sc. / D.Litt./L.L.D. during the last five years (consider only highest degree for count)

Response: 30.34

# 2.4.2.1 Number of full time teachers with NET/SET/SLET/Ph. D./ D.Sc. / D.Litt./L.L.D year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
31	27	24	30	30

File Description	Document
List of faculties having Ph. D. / D.Sc. / D.Litt./ L.L.D along with particulars of degree awarding university, subject and the year of award per academic year.	View Document
Institution data in the prescribed format	View Document
Copies of Ph.D./D.Sc / D.Litt./ L.L.D awareded by UGC recognized universities	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

# 2.5 Evaluation Process and Reforms

# 2.5.1

Mechanism of internal/ external assessment is transparent and the grievance redressal system is time-bound and efficient

**Response:** 

Maintaining the transparency and effectiveness of the internal assessment mechanism is a priority, and a meticulous discussion on syllabus coverage and exam schedules is conducted during the Head of Department's (HoD) meeting presided over by the Principal. This ensures a thorough understanding and adherence to the set schedule. The scheduling process is meticulously followed, reinforcing the robustness of the assessment practices.

To uphold academic standards, faculty members are entrusted with the responsibility of developing internal test question papers based on Bloom's Taxonomy. The question papers for Internal assessments undergo scrutiny by domain expert to maintain fairness and consistency. This approach ensures a comprehensive evaluation that goes beyond rote memorization, focusing on critical thinking and application of knowledge.

The assessment of a student's performance revolves around three Internal Tests (IT1, IT2, IT3), with faculty members allocating marks accordingly. In cases where a student appeals for an improvement test, the Head of the Department may authorize additional assessments such as improvement tests, home assignments, seminars, or other assignments deemed necessary by the instructor. The college exam cell, responsible for examination-related matters, conducts internal tests to address grievances and ensure transparency. Examination timetables and hall plans are communicated well in advance, displayed on notice boards for students' convenience.

Four days before the scheduled subject exams, faculty members submit their subject question papers to the exam cell, duly signed by the Head of the Department. The exam cell provides question papers and answer booklets to students, maintaining the integrity of the examination process.

Students and faculty members receive syllabus details and internal test schedules well in advance, facilitating preparation and understanding of assessment expectations. Evaluated mark sheets are distributed to students for review, and they are later collected and retained by faculty members. This ensures transparency in the evaluation process and provides students with insights into their academic progress.

In order to maintain the transparency and effectiveness of the external assessment Anna University often follows a centralized process for setting of question papers. Question papers are designed centrally by a team of subject experts to maintain consistency and quality. Anna University releases a comprehensive examination timetable well in advance. Regular written exams are conducted for theory subjects. These exams typically include end semester examinations covering the entire syllabus. For practical subjects, students are evaluated through practical exams and project assessments.

Answer scripts are sent to external examiners who are often faculty members from other affiliated institutions. This external evaluation is intended to ensure impartial and fair assessment.

Anna University employs a grading system, with grades assigned based on the performance of students in both internal and external assessments. This system provides a comprehensive view of a student's academic capabilities.

After the completion of evaluations, results are compiled and published centrally. Students can access their results online through the university's official portal. Anna University provides students with the opportunity to apply for revaluation if they are not satisfied with their results. The revaluation process involves a rechecking of the answer script by a different examiner.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	<u>View Document</u>

#### 2.6 Student Performance and Learning Outcomes

#### 2.6.1

Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the institution are stated and displayed on website

#### **Response:**

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

#### Teachers:

POs, COs and PSOs are mentioned in the course plan by the subject handling faculty member. Then the correlation between POs, COs and PSOs for the particular course is done by the subject handling faculty member at the commencement of the semester.

Students: For the theory courses, POs, COs and PSOs mentioned in the course plan is explained and discussed with the students by the subject handling faculty members for the students of the respective classes during the initial classes of that particular course. The course plan for both the theory and practical classes are maintained in the Course file by the respective subject handling faculty member. For the practical courses, POs, COs and PSOs mentioned in the course plan is explained and discussed with the students by the lab handling faculty members for the students of the respective classes during the initial classes of that particular course. Further, the POs, COS and PSOs are displayed in the respective laboratory and student record notebooks.

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for Additional information	View Document

#### 2.6.2

Attainment of POs and COs are evaluated.

Explain with evidence in a maximum of 500 words

#### **Response:**

In the outcome-based education, PO assessment methods used to assess the program outcomes and program specific outcomes are categorized as direct and indirect method. CO assessment is done through a process that identifies, collects and prepares data to evaluate the achievement of course outcomes (COs).

Course Outcomes (COs), Program Outcomes (POs) and Program Specific Outcomes (PSOs) are evaluated through direct and indirect assessments.

#### **Direct Assessment Methods**

Sl. No	Methods/Tools	Frequency of assessment
1	Internal Tests	03/semester
2	Assignments	05/semester
3	University Examinations	01/semester
4	Model Examination (For	01/semester
	Laboratories)	
5	Project Reviews	03/semester
6	Technical Seminars	03/semester

For all the above mentioned evaluation tools, the attainment of all COs in each course is computed based on the knowledge level after setting the expected attainment level. The overall attainment of COs evaluated through Internal Tests , Assignments, lab experiments, Model examination, project reviews and University Examination is calculated as follows:

Then, the overall CO attainment of a course is calculated by sum of 30 % of Internal Assessment & 70 % University Examination

Overall attainment of COs (Theory) = 0.3\*Internal Assessment+ 0.7\*University Examination

Similarly, for the laboratory courses, the overall attainment is calculated as follows:

Overall attainment of COs (Practical) = 0.3\*Internal Assessment+ 0.7\*University Examination

POs and PSOs attainment through direct assessment are calculated for each course as follows:

POi/PSOj attainment (direct) =[ Average of weighted average of POi/PSOj attainment \*0.3]+
[University examination pass percentage \* 0.7]

#### **Indirect Assessment methods**

The indirect method uses Course End Survey (CES) to calculate the PO/PSO attainment (indirect) of each course and the Exit Survey (ES). CES is the opinion or feedback of the students which is used to calculate the perceived level of CO attainment of each course. At the end of the program, ES is collected from the students, to predict the perceived attainment of POs/PSOs through successful completion of that course. CES is a questionnaire based on COs on a 10-point scale and the students will be answering these

questions based on their perceived level of the attainment of CO at the end of the course.

# POi/PSOj attainment (indirect) =[ Average of weighted average of POi/PSOj attainment calculated using CES \*0.7]+ [POi/PSOj attainment obtained from ES\* 0.3]

Where, i=1,2,3...12 (number of POs) and j=1,2,3 (number of PSOs defined)

#### **Overall PO Attainment**

The overall PO attainment of a course is calculated by sum of 80% of PO attainment (direct) and 20% of PO attainment (Indirect), using the equation.

#### Overall PO attainment = 0.8\*PO attainment (direct) + 0.2\*PO attainment (Indirect)

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for Additional information	View Document

#### 2.6.3

#### Pass percentage of Students during last five years (excluding backlog students)

Response: 74.44

# 2.6.3.1 Number of final year students who passed the university examination year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
216	277	476	182	343

# 2.6.3.2 Number of final year students who appeared for the university examination year-wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
296	299	489	423	500

File Description	Document
Institutional data in the prescribed format	<u>View Document</u>
Certified report from Controller Examination of the affiliating university indicating pass percentage of students of the final year (final semester) eligible for the degree programwise / year-wise.	View Document
Annual report of controller of Examinations(COE) highlighting the pass percentage of final year students	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

### 2.7 Student Satisfaction Survey

$\mathbf{a}$	1
,	

Online student satisfaction survey regarding teaching learning process

### **Response:**

File Description	Document
Upload database of all students on roll as per data template	View Document

### Criterion 3 - Research, Innovations and Extension

#### 3.1 Resource Mobilization for Research

#### 3.1.1

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

Response: 19.1

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

2022-23	2021-22	2020-21	2019-20	2018-19
0.115	18.185	0	0.65	0.15

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	<u>View Document</u>

#### 3.2 Innovation Ecosystem

#### 3.2.1

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

#### **Response:**

SSM Institute of Engineering and Technology is dedicated in establishing a comprehensive ecosystem that recognizes and rewards innovation. Institute actively participates in the events of Institution Innovation Council. The institute's commitment to fostering innovation is evident through its continuous recognition, including the Star Rating it has received since 2019-20.

Institution diligently monitors, acknowledges, recommends, and organizes various activities outlined by the Institution Innovation Council. These encompass IIC calendar activities, MIC-driven initiatives, celebration activities, self-driven projects, and the National Innovation Contest. Notably, institute have been acknowledged as a Promising Institution in the ATAL ranking of Institution Innovation, as evaluated by MoE's ARIIA platform.

The Research and Development cell plays an integral role in guiding and coordinating student's research

activities, focusing on addressing societal needs. Programs on innovation, such as Science Day, Energy Conservation Day, National Education Day, and Indian start-up celebrations, are conducted to instil and encourage innovative thinking of the students.

Furthermore, the Startup cell is strategically designed to stimulate students' innovative thought processes by leveraging industry expertise. It collaborates closely with the Entrepreneurship Development Cell, introducing the concepts of worthwhile entrepreneurship. Recognizing and rewarding of profound and extraordinary projects, offering seed funding to encourage timely project completion are provided. The IPR cell of SSMIET established with the objective of ensuring legal protection for innovations, inventions and creative works while fostering a culture of innovation and research. The institute hosts workshops, seminars, and interactions with entrepreneurs, investors, and professionals, building a mentor pool for both faculty and student innovators.

Sharing data of innovation and projects through our web site, igniting the interest of budding researchers. Participation in events like Smart India Hackathons, Idea Competitions, Startup TN, and Startup India has consistently showcased the students' talents. The well-equipped laboratories support round-the-clock for students and faculty members in the area of research and learning. The institute's library offers a wealth of opportunities for academic growth, nurturing the potential for students and faculty to embark on promising career paths.

To further strengthen the connection with industry partners, active engagement in technical consultancy services is done, thereby contributing to societal advancements and engineering a Center of Excellence. Together with the industrial collaborators, institute is dedicated in creating a positive impact on the engineering and technical landscape.

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for Additional information	View Document

#### 3.2.2

Number of workshops/seminars/conferences including on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship conducted during the last five years

Response: 131

### Kesponse. 131

# 3.2.2.1 Total number of workshops/seminars/conferences including programs conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship year wise during last five years

2022-23	2021-22	2020-21	2019-20	2018-19
44	13	29	19	26

File Description	Document
Upload supporting document	<u>View Document</u>
Institutional data in the prescribed format	View Document

#### 3.3 Research Publications and Awards

#### 3.3.1

Number of research papers published per teacher in the Journals notified on UGC care list during the last five years

#### **Response:** 1.4

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

2022-23	2021-22	2020-21	2019-20	2018-19
30	52	51	52	62

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

#### 3.3.2

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

Response: 0.73

3.3.2.1 Total number of books and chapters in edited volumes/books published and papers in

#### national/international conference proceedings year wise during last five years

2022-23	2021-22	2020-21	2019-20	2018-19
31	22	35	4	36

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

#### 3.4 Extension Activities

#### 3.4.1

Outcomes of Extension activities in the neighborhood community in terms of impact and sensitizing the students to social issues for their holistic development during the last five years.

#### **Response:**

Through extension and social outreach programmes benefitting neighbourhood community, we sensitize the students to develop social values and moral ethos, thereby creating a holistic development and inference, spoken over for a period of time. The institute has various clubs like NSS, YRC, UBA, Women Empowerment Cell and Yoga Club to conduct various events for the benefit of neighborhood community. The SSMIET team organized various social and welfare awareness among students in rural areas.

#### **National Service Scheme (NSS)**

NSS is a Student Centered Service Scheme under the direction of Government of India, Ministry of Youth Affairs and Sports, aiming at voluntarily addressing social issues for the benefit of the society. Under NSS scheme, Unnat Bharat Abhiyans Activities, Plastic Awareness Campaign, Dengue Awareness Programmes, COVID-19 Awareness Programmes, Village Field Survey etc. are conducted by the institute to benefit neighbourhood community.

#### **Youth Red Cross (YRC)**

YRC is one of the oldest and largest voluntary organizations with the highest membership enrolment.

Page 45/87 07-02-2024 10:28:23

Our institute based YRC carries out large scale voluntary operations like conducting Medical Camp, Road Safety Awareness, Aadhar Camp, Blood Donation Camps, Grama Sabha, and Hygiene campaigns for the wellbeing of neighbourhood community.

#### **UBA** (Unnat Bharat Abhiyan)

Unnat Bharat Abhiyan is inspired by the vision of transformational change in rural development processes by leveraging knowledge institutions to help build the architecture of an Inclusive India. The conceptualization of UBA started with the initiative of a group of dedicated faculty members of IIT Delhi working for long in the area of rural development and appropriate technology. The concept was nurtured through wide consultation with the representatives of a number of technical institutions.

#### **Women Empowerment Cell (WEC)**

The Institute's Women Empowerment Cell reaches out the neighbourhood community through activities like spreading awareness on Gender Equality, Awareness on Sexual Harassment, Intellectual Empowerment, Social Security, Women Entrepreneurship and works on capitalizing with potential programmes which makes them realize their true potential.

#### Yoga Club

A healthy mind in a healthy body exhibiting spiritual attainment through meditation and yoga spreading across messages of true well being is the aim of the club. Our institute conducts yoga classes for students.

#### **Space Club**

Space club will provide a supportive and stimulating environment for students to explore their interests in space-related disciplines and engage with like-minded professionals. It is an excellent way to gain practical experience and enhance one's skills and knowledge in the field of space exploration.

File Description	Document
Upload Additional information	View Document

#### 3.4.2

# Awards and recognitions received for extension activities from government / government recognised bodies

#### **Response:**

The Institute has been actively involving itself in various social outreach activities from its induction. Various awareness programmes are conducted through the NSS, YRC, UBA, Women Empowerment Cell and Yoga Club at different periodicities involving students in large numbers. The Institution is continually reported in the news papers for its untiring efforts to reach out, creating awareness in various themes like Women Empowerment and Education, road safety, environmental awareness, tree plantation,

blood donation, and use of plastic, AIDS awareness, Covid vaccination camps.

Central government schemes like Unnat Bharat Abhiyan have also been given due importance and have benefitted neighbourhood villages. The activities of the YRC in conducting world blood donors awareness is worth mentioning. Green Dindigul mission aided to plantation of enormous trees thereby taking part in the environmental vision of the country. Repeated conduct of traffic awareness programmes in Dindigul with the help of the traffic department have ensured safe mobility of vehicular traffic and mandatory wearing of helmets.

Understating the importance of activities like distribution of food and essential to the local public the institute reached out to the houses. The Institute is stated as a reference point and has set higher values and standards of social service for which the Management, Faculty and Students painstaking efforts marks and indelible note.

File Description	Document
Upload Additional information	View Document

#### 3.4.3

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

#### **Response:** 68

# 3.4.3.1 Number of extension and outreach Programs conducted in collaboration with industry, community, and Non- Government Organizations through NSS/ NCC etc., year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
25	19	0	24	0

File Description	Document
Photographs and any other supporting document of relevance should have proper captions and dates.	View Document
Institutional data in the prescribed format	<u>View Document</u>
Detailed report for each extension and outreach program to be made available, with specific mention of number of students participated and the details of the collaborating agency	View Document

#### 3.5 Collaboration

#### 3.5.1

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

**Response:** 35

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

### **Criterion 4 - Infrastructure and Learning Resources**

### 4.1 Physical Facilities

#### 4.1.1

The Institution has adequate infrastructure and other facilities for,

- teaching learning, viz., classrooms, laboratories, computing equipment etc
- ICT enabled facilities such as smart class, LMS etc.

Facilities for Cultural and sports activities, yoga centre, games (indoor and outdoor), Gymnasium, auditorium etc (Describe the adequacy of facilities in maximum of 500 words.)

#### **Response:**

The Institution follows the norms provided by AICTE for establishing and enhancing the infrastructure that facilitates effective teaching and learning in proportion to the student strength in different disciplines. The institution constantly expands and upgrades the required infrastructure facilities, anticipating future requirements. All the departments are fully equipped with the necessary infrastructure to meet the ever-increasing requirements with adequate class rooms, seminar halls, laboratories and sufficient space for hosting all the academic activities.

The Institution is well equipped with 37 classrooms, 35 laboratories, 455 computers, an acoustically designed auditorium with a seating capacity of 3000. There are 3 seminar halls, out of them 2 are air conditioned, and an indoor auditorium with 1500 seating capacity. In order to promote a good teaching learning environment, all the classrooms are equipped with LCD projectors, and writing boards.

Laboratories, Internet and Library & Reading room facilities are provided beyond college hours for students and faculty to improve their competency. The availability of e-resources especially reputed journals and digital library services provide further support to students in undertaking research activities. Besides, facilities to enable learning through video Conferencing are also available.

The Institution has policies, for creation and enhancement of infrastructure in order to promote a good teaching-learning environment. Further, the top management periodically discusses with Principal and HoDs regarding enhancement of infrastructural facilities to enable suitable ambience for effective teaching learning process. There are 56 CCTV cameras are helping to maintain a safer and more secured environment.

The Institution takes efforts to facilitate research with all the resources like laboratories, digital library and computer lab facilities especially for research and project works. Curriculum examples are supported with practical ideas, including ideas for working and learning digitally, managing digital content and for developing digital citizenship. The ICT enabled class room facilities include a wireless interactive device, a document camera, LCD projector and white board.

E-Learning is being introduced and students are given access to download and use presentation slides. Facilities to enable learning through Video Conferencing and smart class are also made available. High Speed Internet with unlimited access to educational contents is made available for both faculty

members and students.

The sports area includes Indoor court with well-furnished flooring and Gym. Many students have represented the institution at zonal level, state level and national level tournaments. The Institution has a regular post of Physical Director. Besides him, there are part time instructors for GYM, Yoga and athletics. The Institution has the following sports facilities: Badminton court, Table Tennis, Hand Ball courts, Football ground, Basketball court, Ball Badminton court, Cricket ground, Sports Officer Chamber, Yoga & Meditation Room. There are two specially appointed personnel for gym and sports facilities. Girl students are motivated to participate in various inter and intra collegiate competitions. The Institution has sufficient equipments for athletics.

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for Additional information	View Document

#### 4.1.2

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

Response: 17.73

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

2022-23	2021-22	2020-21	2019-20	2018-19
98.33	61.07	57.42	68.22	108.37

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

#### 4.2 Library as a Learning Resource

#### 4.2.1

Library is automated with digital facilities using Integrated Library Management System (ILMS), adequate subscriptions to e-resources and journals are made. The library is optimally used by the faculty and students

#### **Response:**

Name of the Software : AUTOLIB -Multi User Library Software

Year of Automation : 2013 onwards

URL : 10.10.4.102:8080/AutoLib

**OPAC Search:** 

User ID : WebOpac

Password : WebOpac

The Institution has an exclusive building for central library with all amenities. Library has a collection of 28,827 volumes. The books are classified according to the Deway Decimal Classification system. Open access system is followed in the library. Based on the requirement of subject handling faculty, books are purchased properly during the academic year with the approval of Library Advisory Committee and Head of the Department. New arrivals are updated in the library database for easy accessibility of students.

The number of copies and titles are increased in each academic year as recommended by Anna University and AICTE. To inculcate the book reading habits among the students, an exclusive Library Hour is included in the class time tables for all the years.

#### LIBRARY BOOKS

Total No. of Volumes: 28,827

Total No. of Titles : 6760

Financial Year	No. of Volumes Added	
2022 - 2023	1727	
2021 - 2022	1307	
2020 - 2021	1364	
2019 - 2020	1654	
2018 - 2019	1739	

JOURNAL SUBSCRIPTION		
Financial Year Hard Copy		

2022 - 2023	142 No.
2021 - 2022	130 No.
2020 - 2021	106 No.
2019 - 2020	106 No.
2018 - 2019	102 No.

## **E-Resources**

Learning Resources (Soft)		
E-Resources		
• E-Journals	911 No.	
• E-Books	10,664 No.	
AUTOLIB Software	Updated the recent version of AUTOLIB–Integrated Library Management Software- Web Based Software – Multiuser-Advanced Edition.	
NPTEL Resources (4TB HDD)	Content Management System and Videos are available for NPTEL Resources in College LAN. (4TB HDD)	
Digital Library Services	Digital Library facilities were provided in the Library where students can access all kinds of esources.	
Availability of Intranet/Internet	Internet browsing facilities are available in the library. (Bandwidth:300 Mbps)	
Video courses online & Institutional Membership	<ul> <li>NPTEL-http://nptel.iitm.ac.in/</li> <li>National Digital Library Registration ID: INTNNC5O2RGXCAE</li> <li>DELNET</li> </ul>	
	(Membership No: IM-7078)	

## **Library Infrastructure**

Infrastructure	Details	
Carpet Area of Library	1136 Sq.m. (12,226 Sq. Feet)	
Number of seats in Reading Space	120	

Number of Users per day	150-200 No.
Timings:	
<ul><li>On Working Days</li><li>During Examination</li><li>During Vacation</li></ul>	8.45 am to 6.30 pm 8.45 am to 6.30 pm
	8.45 am to 6.30 pm
Number of Library Staff	03
Availability of Bar-coding facilities	Barcode Technology is followed for
	Circulation and Library Gate Entries.

## **Special Services/Facilities offered:**

- 1. Library equipped with **CCTV Cameras**
- 2. Book Bank facilities
- 3. **Photocopying** facilities
- 4. Scanner and Printer facilities
- **5. Back Volumes Section**: Back volumes of journals have been neatly bounded and categorized for reference.
  - 6. Inter-Library Loan facilities
  - 7. News Paper Clipping Services
- **8. Question Papers**: Previous year Anna University Examination question papers have been segregated and categorized for students' reference.
  - 9. Faculty Publications and Research Papers are available for reference.
- 10. Motivation: Regular library users are appreciated with prizes during the Librarians' Day celebrations.

File Description	Document
Upload Additional information	View Document
Provide Link for Additional information	View Document

#### 4.3 IT Infrastructure

#### 4.3.1

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

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

#### **Response:**

All the departments are well equipped with portable equipment like laptops, LCD projectors and WiFi. All the offices, Exam cell and library are provided with well-equipped internet connections through WiFi.

Digital Library has been created in the Institution and accessed through Intranet and WiFi connectivity. The e-Learning resources contain NPTEL Videos, NPTEL Web courses and E-Books.

Well equipped English language lab with net facility is established for the benefit of students to develop fluency and accuracy of their communication skills. All the Computer laboratories consist of latest software relevant to their discipline.

Wifi connectivity is also provided in hostels for the learning assistance. All the hostels in the college are provided with Wi-Fi facilities for accessing both Internet and Intranet using their personal laptop. Several Wi-Fi units are installed in the hostels for better coverage and connectivity.

The institution is constantly upgrading both the software and hardware at par with the industry and academic standards. IT infrastructure is upgraded every year with major budget allocation. The Internet facility and Networking facility as of now available in the institute can facilitate video conferencing and video streaming.

#### **Bandwidth of internet connection in the Institution**

All the systems available in the institution are provided with Internet facility.

Number of computers with	Bandwidth of leased line	LAN configuration and speed
access to internet	connection	
455 system - Overall	250 + 50  MBPS	100/1000 GIGA BYTE
College campus -outdoor wifi	250 + 50  MBPS	100/1000 GIGA BYTE
device - 4 ARUBA		

#### **Dedicated computing facility:**

24 hour dedicated server is available for faculty and students to store their data, access the information and to run their programs using programming languages.

#### LAN facility:

All the systems available in the college are connected in 100/1000 GIGA BYTE LAN and provided with Internet facility. The Internet with a dedicated speed of 250 + 50 Mbps (1:1) through optical fiber cables is available. The networking of all departments is made through Optical Fiber Cables (OFC) and networking of all computer systems among the departments are provided through CAT 5/6 Cables.

#### Wifi facility:

WiFi connectivity is provided throughout the campus. All the blocks in the college are provided with WiFi facilities for accessing both Internet and Intranet using personal laptops. Several Wi-Fi units are installed in various places of campus for better coverage and connectivity. The Wi-Fi facility is extended to Guest house, Auditorium and Principal's office to provide internet access to guests and vendors.

#### ILL LINE UPDATE

S.NO	ILL	UPDATE
	LINE	
1	AIRTEL - 110MBPS	01.07.2018
2	AIRTEL – 120MBPS	04.04.2021
3	BSNL – 250MBPS	18.01.2023

#### **WIFI**

S.NO	WIFI	COUNT
	DEVICE	
1	MIKROTIK(18.08.2016)	4

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for Additional information	View Document

#### 4.3.2

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

Response: 2.47

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

Response: 455			
File Description	Document		
Purchased Bills/Copies highlighting the number of computers purchased	View Document		
Extracts stock register/ highlighting the computers issued to respective departments for student's usage.	View Document		
Provide Links for any other relevant document to support the claim (if any)	View Document		

### 4.4 Maintenance of Campus Infrastructure

#### 4.4.1

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

Response: 28.69

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

2022-23	2021-22	2020-21	2019-20	2018-19
191.38	65.57	46.96	133.75	198.95

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

### **Criterion 5 - Student Support and Progression**

### **5.1 Student Support**

#### 5.1.1

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

Response: 71.42

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

2022-23	2021-22	2020-21	2019-20	2018-19
733	1027	1245	884	962

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

#### 5.1.2

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.ICT/computing skills

Response: A. All of the above

Page 57/87 07-02-2024 10:28:24

File Description	Document
Report with photographs on Programmes /activities conducted to enhance soft skills, Language and communication skills, and Life skills (Yoga, physical fitness, health and hygiene, self-employment and entrepreneurial skills)	View Document
Report with photographs on ICT/computing skills enhancement programs	View Document
Institutional data in the prescribed format	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

#### 5.1.3

Percentage of students benefitted by guidance for competitive examinations and career counseling offered by the Institution during the last five years

Response: 55.52

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

2022-23	2021-22	2020-21	2019-20	2018-19
597	559	573	1002	1040

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

#### 5.1.4

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

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

**Response:** A. All of the above

Page 58/87 07-02-2024 10:28:24

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

### **5.2 Student Progression**

#### 5.2.1

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

Response: 46.72

# 5.2.1.1 Number of outgoing students placed and / or progressed to higher education year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
73	189	115	166	155

#### 5.2.1.2 Number of outgoing students year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
216	277	476	182	343

File Description	Document
Number and List of students placed along with placement details such as name of the company, compensation, etc and links to Placement order(the above list should be available on institutional website)	View Document
List of students progressing for Higher Education, with details of program and institution that they are/have enrolled along with links to proof of continuation in higher education.(the above list should be available on institutional website)	View Document
Institutional data in the prescribed format	View Document

#### 5.2.2

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

Response: 1.26

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

2022-23	2021-22	2020-21	2019-20	2018-19
3	0	0	2	5

File Description	Document
List of students qualified year wise under each category and links to Qualifying Certificates of the students taking the examination	View Document
Institutional data in the prescribed format	View Document

### **5.3 Student Participation and Activities**

#### 5.3.1

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

#### Response: 41

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

2022-23	2021-22	2020-21	2019-20	2018-19
15	2	6	12	6

File Description	Document
Upload supporting document	<u>View Document</u>
list and links to e-copies of award letters and certificates	View Document
Institutional data in the prescribed format	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

#### 5.3.2

Average number of sports and cultural programs in which students of the Institution participated during last five years (organised by the institution/other institutions)

#### Response: 31.4

# 5.3.2.1 Number of sports and cultural programs in which students of the Institution participated year wise during last five years

2022-23	2021-22	2020-21	2019-20	2018-19
52	17	16	46	26

File Description	Document
Upload supporting document	View Document
Institutional data in the prescribed format	View Document

### **5.4 Alumni Engagement**

#### 5.4.1

## There is a registered Alumni Association that contributes significantly to the development of the institution through financial and/or other support services

#### **Response:**

SSMIET places strong emphasis on developing a strong alumni network, not only to maintain connectivity among alumni but also to provide a platform for the philanthropic endeavors of talented alumni. The alumni association serves as a platform for sharing experiences related to academia, culture, career, and professional development.

Formal registration of the Alumni association is done in January, 2024.

#### **Objectives**

- The alumni association aims to support the interests and well-being of its members, ensuring that their needs and concerns are addressed.
- To encourage the development of strong friendships and professional networks between alumni and alumni and institution.
- The association endeavors to engage alumni in various community activities, fostering a sense of social responsibility and encouraging them to give back to the community.

#### **Highlights**

One of the annual highlights is the **Alumni Meet** organized by SSMIET. This formal event involved an inaugural ceremony and fosters interactions between alumni and present students. During the program, alumni provided insights about various fields of specialization and shared their experiences in the corporate world with the current batch of students. They also offered guidance and support to students, ensuring ongoing communication and assistance for projects, training, and recruitment.

#### Support Services rendered by our Renowned Alumni

- Offering guidance and mentorship to current students and recent graduates.
- Providing career advice, placement assistance, and internship opportunities.
- Delivering guest lectures or conducting workshops to share expertise and experiences.
- Collaborating on research projects to contribute to academic and research endeavors.
- Facilitating networking opportunities within professional circles.

#### Alumni Activities in the year 2023 - 24

- The **Grand Alumni Meet** for the year 2023 -24 was successfully conducted on July 30, 2023, as an initiative of the Alumni Association. The event featured Mrs. Anu Varatharajan, CEO of Happy HR, who was acted as the Chief Guest. It provided an opportunity for alumni to reconnect and engage with each other and with the institution, and the presence of a distinguished Chief Guest added a significance impact of the occasion.
- Alumni took roles as members in final year project reviews and promised to provide a constructive feedback and guidance to graduating students.
- Notably, alumni generously offered opportunities for final year students to engage in real-time projects, bridging the gap between academia and industry.

• Alumni extend their involvement in the Departmental Advisory Committee (DAC) meetings, where their valuable insights were shared.

#### **Action Plan**

- Organize alumni talk series, webinars, and seminars led by alumni to provide industry insights, industry trends, and professional development opportunities.
- Alumni Meet for the next academic year to be planned which will provide an opportunity for alumni to reconnect, share experiences, and contribute to the continued success of the institution.

File Description	Document	
Upload Additional information	<u>View Document</u>	
Provide Link for Additional information	View Document	

### Criterion 6 - Governance, Leadership and Management

#### 6.1 Institutional Vision and Leadership

#### 6.1.1

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

#### **Response:**

The Institution embraces a decentralized and participatory governance model, fostering active engagement from all the stakeholders in both administrative and academic functions. The Governing body entrusts authority to the Principal, who subsequently distribute these responsibilities across various levels of college staff members.

Significant contributions to the formulation of institutional policies and their effective executions are made by Head of Departments, coordinators of various committees and as well as faculty representatives participating in higher decision-making bodies. This collaborative and inclusive approach reflects the institution's commitment to share governance with the inputs from a diverse array of individuals.

The system operates with a high degree of decentralization to enhance better governance and performance. Strategic plans and significant decisions related to academic and administrative matters decided after an extensive deliberation in both IQAC and Governing Council meetings. The Head of the Institution is responsible for executing any decisions approved by IQAC and GC. Department Heads and faculty members ensure the effective implementation of policies approved by the Governing Council. The authority and decision making is delegated to people across the system. The Management grant autonomy to the Principal to plan and execute the Institution's strategic plan in accordance with its Vision and Mission.

Furthermore, Department Heads are entrusted with department-level authority and operational autonomy, to execute any key decisions approved by the Principal. Usually, Department Heads, along with the faculty members, actively oversee departmental affairs. They also conduct periodical regular meetings to ensure academic activities as per the academic schedule. A weekly HoD's meeting is convened by the Principal to plan and review the proceedings related to academics. Administrative works are carried out under the supervision of the Administrative Officer (AO).

Faculty members and students actively participate in the decision-making processes within the institution by providing suggestions. Faculty members have a pivotal role in transforming the institute's goals into action. Head of the Departments has been given a significant degree of autonomy in both the academic and the administrative matters related to their respective programs.

Faculty members exert influence on the institutional framework through their representation on various key bodies via the Governing Council (GC), Internal Quality Assurance Cell (IQAC), the Departmental Advisory Committee (DAC), and other academic and administrative committees. In addition, faculty members are integral members and often serve as coordinators in several committees responsible for the

Page 64/87 07-02-2024 10:28:24

Institute's day-to-day operations. These committees cover a wide spectrum of functions, including examinations, grievance redressal, anti-ragging, student admissions, library affairs, student welfare, academic audit, sexual harassment redressal, training and placement, research and development progress, industry-institute partnerships, and disciplinary matters.

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for Additional information	View Document

#### **6.2 Strategy Development and Deployment**

#### 6.2.1

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

#### **Response:**

#### **Functioning of the Institutional Bodies:**

The system is effectively decentralized for better governance and performance. The strategic plans and major decisions pertaining to academic and administrative processes are thoroughly discussed in the IQAC and Governing Council meeting. The approved decisions are executed by the Head of the Institution. Only the Heads of the Departments and the faculty members ensure proper implementation of the policies given by the Governing Council. A well delegated system is available for decision-making.

The Management gives autonomy to the Principal to execute the strategic plan in order to reach the Vision and Mission of the institution. The Heads of the Departments are delegated with an operational autonomy to take important decisions with the Principal's endorsement.

The Principal along with the HODs plan the academic activities, NEP implementation, Funded Consultancy Projects, Industry – Institution connection, Accreditations and Autonomous, MoUs, R & D Consultancy, innovations in teaching-learning procedures, and so forth. Based on this plan, the academic calendar for each semester is prepared which is approved by the Principal.

Academic activities are executed as per the academic calendar and the academic processes are monitored by respective HoDs. Mentorship is provided to all the faculty meetings and it is commendably supervised by the Principal. He invites suggestions from senior staff members to study the impulses of the institute in general and take steps for further improvements. Faculty members are encouraged to pursue Ph.D. for their personal development and to make the Institute possess a maximum number of eligible faculty members.

Mostly, the Heads of the Departments, academic coordinators, year coordinators/ Class In-charge along

with faculty members actively govern and administer the Department. The Heads of the Departments also convene meetings periodically to ensure the execution of as planned as per the academic schedule. Also, the Principal convenes regular meetings for all the faculty members along with Heads of the Departments periodically to review academic-related matters. All other administrative works are carried out under the administrative officer's perview.

The Principal, Heads of the Departments, and Faculty members are bound by the policy laid by the Institution. These policies can cover a wide range of areas, including academic standards, code of conduct, admission procedures, financial regulations, safety protocols, and more. Adhering to these policies helps to maintain order, fairness, and the overall integrity of the educational institution.

#### Institutional success hinges on adherence to prescribed procedures and policies, ensuring that,

- 1. Organogram of the Institution
- 2. Strategy Plan of the Institution.
- 3. Service Rules.
- 4. Staff Recruitment Policy
- 5. Staff Promotion Policy
- 6. Leave Rules
- 7. Admission Policy
- 8. Staff welfare Policy
- 9. Academic Calendar for each semester
- 10.SSMIET Model

File Description	Document
Upload Additional information	View Document
Institutional perspective Plan and deployment documents on the website	View Document
Provide Link for Additional information	View Document

#### 6.2.2

#### Institution implements e-governance in its operations

- 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 of each module reflecting the name of the HEI	View Document
Institutional expenditure statements for the budget heads of e-governance implementation ERP Document	View Document
Annual e-governance report approved by the Governing Council/ Board of Management/ Syndicate Policy document on e-governance	View Document

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

#### 6.3.1

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

#### **Response:**

#### WELFARE MEASURES AND PERFORMANCE APPRAISAL SYSTEM FOLLOWED:

#### **Leave Benefits:**

- 1. Both the teaching and non-teaching staff members are entitled to avail medical leave, winter and summer vacation holidays as applicable to their eligibility.
- 2.On Duty is granted to participate in workshops, seminars, Faculty Development Programs (FDPs), conferences, as well as to attend Anna University Exam duties and central valuation.
- 3. Maternity leave of three months is provided for women faculty members with pay / half pay.
- 4. Faculty members are granted additional leaves to complete their research.
- 5. Flexible working hours or remote working options are provided to the faculty members wherever feasible.

#### **Promotion / Increment Benefits:**

- 1. Promotions and increments are awarded Based on performance appraisals for the Faculty members are promoted as per Institution's norms.
- 2. Cash awards and appreciations are bestowed upon faculty members in recognition of their outstanding performance in research, TLP, outreach etc.

#### **Recognition and Awards:**

- 1. A recognition awards to acknowledge the outstanding performance and achievements of faculty members in every year.
- 2. Long-term service awards are given to teaching, non-teaching, and ministerial staff members.

#### **Research Benefits:**

- 1. Faculty members are encouraged to pursue Ph.D. and publish research articles in indexed journals with incentives.
- 2. An incentive of Rs 300 per month is provided to faculty members to attend Faculty Development Programs (FDPs), Seminars, or Workshops in various nationally reputed institutions.

#### **Medical Benefits**

- 1. Employees Provident Fund scheme (EPF) is available for both teaching and non-teaching staff from their date of joining.
- 2. A group insurance scheme is extended to all staff members.

#### **Faculty Grievances Redressal**

- 1.A Grievance Section is established for teaching and non-teaching staff to address and resolve their grievances.
- 2. A feedback system is available to understand the needs and concerns of teaching and non teaching staff members.

#### **SSMIET Employee Benefits**

- 1. Accommodation is provided to the faculty members who wish to stay in the hostel with the concessional fees.
- 2. Fee concession is offered to the children of teaching and non- teaching faculty members of the institution.
- 3. Transport facilities are offered to all the teaching and non-teaching staff. The non-teaching staff members receiving this service as free of charge.
- 4. Regular free medical checkup camps are organized for all teaching, non-teaching, and ministerial staff members.
- 5. Faculty orientation programs are conducted for newly appointed faculty members in every year / semester.

#### **Basic Criteria for Faculty Appraisal System**

- Innovation in teaching pedagogy.
- Number of Guest Lectures/Workshops/Seminar organized for the students.
- Extra activities carried out to address the slow and fast learners.
- Proper maintenance of Course Files as per the prescribed list of contents.
- Awards/ Recognitions received for excellence in teaching/ research/ students' projects.
- Articles published in SCOPUS Indexed journals.
- Conference organized by the individual / team during the assessment period.
- Papers presented at Conferences, Seminars, Workshops, Symposia, Journals National / International).
- Funded Research Projects handled as Principle Investigator (PI) or as Co-PI
- Patents filed / granted in the Department.

File Description	Document
Upload Additional information	<u>View Document</u>
Provide Link for Additional information	View Document

#### 6.3.2

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

Response: 32.48

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

2022-23	2021-22	2020-21	2019-20	2018-19
45	7	6	55	39

File Description	Document
Policy document on providing financial support to teachers	View Document
Institutional data in the prescribed format	<u>View Document</u>
Copy of letter/s indicating financial assistance to teachers and list of teachers receiving financial support year-wise under each head.	View Document

#### 6.3.3

Percentage of teaching and non-teaching staff participating in Faculty development Programmes (FDP), Management Development Programmes (MDPs) professional development /administrative training programs during the last five years

Response: 55.34

# 6.3.3.1 Total number of teaching and non-teaching staff participating in Faculty development Programmes (FDP), Management Development Programmes (MDPs) professional development /administrative training programs during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
84	61	66	79	57

#### 6.3.3.2 Number of non-teaching staff year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
30	24	35	33	37

File Description	Document
Institutional data in the prescribed format	<u>View Document</u>
Copy of the certificates of the program attended by teachers.	View Document

#### **6.4 Financial Management and Resource Mobilization**

#### 6.4.1

Institution has strategies for mobilization and optimal utilization of resources and funds from various sources (government/nongovernment organizations) and it conducts financial audits regularly (internal and external)

#### **Response:**

In the pursuit of academic excellence and sustainable growth, SSMIET has strategically positioned itself with a robust framework for the mobilization and optimal utilization of resources and funds from various government and non-government organizations. This strategic approach is reinforced by a commitment to financial transparency, accountability, and effective utilization of resources.

#### **Mobilization of Resources:**

SSMIET recognizes the importance of diversifying its funding sources to reduce dependency on a single channel. To achieve this, faculty members proactively identify and apply for various research activities, conduct of faculty and student development programs in their domains with various government agencies, non-governmental organizations, and corporate partners for research grants. By fostering strong relationships with government bodies, we actively participate in government-sponsored initiatives and programs. This not only ensures financial support but also facilitates the institution's involvement in key national and regional educational priorities. Simultaneously, SSMIET engages with non-government organizations and NGO's that share our commitment to education and community development.

#### **Optimal Utilization of Resources:**

Resource optimization is a cornerstone of SSMIET's strategy. Principal of the institution efficiently allocate the funds and resources across academic departments, research initiatives, infrastructure

development, and student support services based on the budget provided by the HoDs. This careful allocation ensures that every resource contributes to the overall advancement of the institution.

Strategic planning plays a pivotal role in resource optimization. SSMIET regularly conducts comprehensive assessments of its short-term and long-term needs, allowing for informed decision-making in resource allocation. This includes investments in faculty development, conduct of technology training, library resources, and state-of-the-art laboratories, infrastructure, technology upgrades to enhance the overall learning experience for students.

#### **Financial Audits:**

A commitment to financial transparency and accountability is evident through the regular conduct of both internal and external financial audits. Internal audits are conducted by an independent internal audit team that evaluates financial processes, adherence to policies, and the effectiveness of internal controls. This ensures that the institution's financial operations align with established standards and best practices.

Externally, the institution undergoes regular audits conducted by reputable external audit firms. These audits provide an objective evaluation of financial practices, compliance with regulatory requirements, and the accuracy of financial reporting. The findings from these audits are shared with relevant stakeholder through the periodical meetings of Governing Council and IQAC reinforcing the SSMIET's commitment to transparency and accountability.

#### **Continuous Improvement:**

SSMIET views the mobilization and optimal utilization of resources as a dynamic and ongoing process. Regular reviews of financial strategies, adjustments to resource allocation based on regulations of Anna University, evolving needs, and continuous training for faculty and staff involved in financial management ensure that the institution remains agile and responsive to changing circumstances.

In conclusion, SSMIET's strategies for resource mobilization and utilization are integral to its mission of providing high-quality education, fostering research and innovation, and contributing to societal development. The commitment to financial audits underscores our dedication to transparency and accountability, ensuring that resources are deployed effectively to create a lasting impact on the educational landscape and the communities we serve.

File Description	Document
Upload Additional information	<u>View Document</u>

### 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. It reviews teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals and records the incremental improvement in various activities

#### **Response:**

Internal Quality Assurance Cell (IQAC) has been framed to develop a system of conscious, consistent, and catalytic improvement in the overall performance of the institution. IQAC is involved in all major academic, administrative, and student- centric procedures and engages in facilitating academic audits, preparing annual reports, affiliation, and other quality audit processes. The Cell documents and reports the various activities carried out in the institution. Thus, IQAC ensues as the leading system of the institution to ensure quality and continuous improvement towards holistic academic excellence.

Initiatives within IQAC include:

#### **Quality Assurance Strategies:**

- IQAC is responsible for developing and implementing effective quality assurance strategies aligned with the institution's goals.
- These strategies involve the establishment of benchmarks, standards, and performance indicators for various activities.

#### **Feedback Mechanisms:**

- Establishing effective feedback mechanisms for students, faculty, and other stakeholders to gather insights on the quality of teaching, infrastructure, and support services.
- Analyzing feedback to identify areas for improvement and implementing necessary changes.

#### **Accreditation Support:**

- IQAC often plays a key role in preparing the institution for accreditation processes.
- It ensures that the institution meets the criteria and standards set by accreditation bodies, leading to formal recognition of quality.

#### **Professional Development Initiatives:**

- Initiating professional development programs for faculty and staff to enhance their skills and knowledge.
- Supporting initiatives that contribute to the continuous professional growth of the academic community.

#### **Periodic Reviews of Academic Processes:**

IQAC periodically reviews the teaching-learning process, structures & methodologies of operations, and learning outcomes:

Academic Calendar: Based on the affiliating University Academic Calendar the Institute prepares the

Page 72/87 07-02-2024 10:28:24

academic calendar well in advance at the start of the year / semester for not only the regular teaching-learning process but also to accommodate the various events.

**Preparation of lesson plan:** The lesson plan is prepared by the faculty members for all the subjects they teach in that particular semester.

**Evaluation of teachers by students**: The institution has a feedback system to evaluate the teachers by the students. The regular evaluation of the teachers by the students, feedback on teaching methodologies, course delivery, attitude, strengths and weaknesses, and difficulties faced in the subject gives a clear idea about the problems faced by the students. Principal and management also monitor the feedback system and takes appropriate corrective actions.

**Student learning outcomes**: The institute monitors the performance of the students regularly.

- Midterm and continuous evaluation comprising internal tests, assignments, group discussions, and seminar presentations.
- Semester system of examination for all courses.
- Providing a Question bank of various subjects to the students.
- At least 75% Attendance is compulsory in each semester.
- Extra classes for weak students to solve their problems.

File Description	Document						
Upload Additional information	<u>View Document</u>						
Provide Link for Additional information	View Document						

#### 6.5.2

Quality assurance initiatives of the institution include:

- 1. Regular meeting of Internal Quality Assurance Cell (IQAC); quality improvement initiatives identified and implemented
- 2. Academic and Administrative Audit (AAA) and follow-up action taken
- **3.** Collaborative quality initiatives with other institution(s)
- 4. Participation in NIRF and other recognized rankings
- 5. Any other quality audit/accreditation recognized by state, national or international agencies such as NAAC, NBA etc.

**Response:** A. Any 4 or more of the above

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

### **Criterion 7 - Institutional Values and Best Practices**

# 7.1 Institutional Values and Social Responsibilities

#### 7.1.1

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

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

#### **Response:**

#### I. FACILITIES PROVIDED FOR WOMEN WITH REGARD TO:

#### Safety and Security:

- Ø SSMIET prioritizes the safety and well-being of all the students, faculty and staff members. Especially focus on the safety and security of the female students and female staff members is done and creating an environment that feels like a second home.
- Ø SSMIET campus is safeguarded by a dedicated team of security personnel and female staff members from the estate, ensuring the safety and well-being of all girl students and faculty members within the premises.
- Ø Women Empowerment Cell actively organizes awareness programs addressing vital topics such as health, hygiene, self-protection, and harassment prevention. Programs conducted in both the online and in-person mode.
- Ø SSMIET campus has comprehensive surveillance system with cameras strategically placed, covering key areas like entrances, boys and girls hostels, library, and parking lots.
- Ø Stringent safety measures implemented by the institute by providing the separate staircases in each block for emergencies, fire extinguishers, first aid boxes in all the staff cabins and labs.
- Ø SSMIET campus is designed and built with spacious corridors, well-ventilated classrooms, and labs, ensuring a safe and comfortable learning environment for everyone."

#### **Counseling and Mentoring Support:**

- Ø Each faculty member acts as mentors for a group of 15-20 students, to foster academic, personal, and psycho-social growth. Students' academic progress and all other details has been properly registered and updated.
- Ø Scheduled mentoring hours are integrated into the academic timetable, allowing mentors to engage individually with their mentees.

Page 75/87 07-02-2024 10:28:24

Ø Other than faculty mentors, for specific cases, professional counselor, Dr. S. Asha, is available to provide specialized support on needed basis.

#### **Common Facilities:**

- Ø Comfortable and private common rooms designated for girls, lady faculty and staff members, offering a peaceful space for relaxation.
- Ø Inside the campus, there are separate washrooms and a dedicated canteen facility, ensuring privacy and convenience.
- Ø Participation and representation of girls are highly encouraged in all the committees like anti-ragging committee, anti-sexual harassment committee, class committee, placement committee, clubs, association etc.

#### **Class and Placement Committees:**

- Ø Every semester, Class Committee and Placement Committee meetings are organized to address the academic concerns and placement-related needs. In these meetings Head of the Department, faculty members, students will be the members of the committees and discuss about the queries and complaints.
- Ø To ensure transparency, a faculty member from other department act as an observer to oversee the meetings. To promote inclusivity and fairness, both male and female students are the members of committee.

# II. INITIATIVES TOWARDS CELEBRATION OF NATIONAL AND INTERNATIONAL COMMEMORATIVE DAYS:

- Ø At SSMIET, the spirit of unity resonates through the vibrant tapestry of national celebrations and diverse events that bring together students, faculty, and staff members.
- Ø Embracing the essence of patriotism, the campus joyously observes significant national days, including Independence Day and Republic Day.
- Ø Beyond national festivities, the institution dedicates special moments to honor and appreciate the contributions of women, engineers, and teachers on Women's Day, Engineers' Day, and Teachers' Day, respectively.

File Description	Document						
Upload Additional information	<u>View Document</u>						
Provide Link for Additional information	View Document						

#### 7.1.2

#### The Institution has facilities and initiatives for

- 1. Alternate sources of energy and energy conservation measures
- 2. Management of the various types of degradable and nondegradable waste
- 3. Water conservation
- 4. Green campus initiatives
- 5. Disabled-friendly, barrier free environment

**Response:** A. 4 or All of the above

File Description	Document							
Policy document on the green campus/plastic free campus.	View Document							
Geo-tagged photographs/videos of the facilities.	View Document							
Circulars and report of activities for the implementation of the initiatives document	View Document							
Bills for the purchase of equipment's for the facilities created under this metric	<u>View Document</u>							
Provide Links for any other relevant document to support the claim (if any)	View Document							

#### 7.1.3

Quality audits on environment and energy regularly undertaken by the Institution. The institutional environment and energy initiatives are confirmed through the following

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

**Response:** A. All of the above

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

#### 7.1.4

Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and Sensitization of students and employees to the constitutional obligations: values, rights, duties and responsibilities of citizens (Within 500 words)

#### **Response:**

# **Inclusive environment and Sensitization of students:**

SSM Institute of Engineering and Technology is dedicated to cultivate an inclusive environment that unites individuals regardless of cultural, regional, or linguistic distinctions. The institute fervently promotes the philosophy of 'Unity in Diversity'. Moreover, the institute consistently arranges a variety of co-curricular and extra-curricular events to foster harmonious relationships among individuals both within and beyond the campus. The institute raises awareness about the importance of upholding constitutional rights and responsibilities, values, and duties among students and staff members aiming to nurture them into responsible citizens of the nation.

Human Values and Professional Ethics are not taught as subjects; rather, they are imbibed by the students as the management, authorities, faculty and staff set an example by indulging in service activities. The institution is purposely situated amidst rural background surrounded by twenty five villages in this region to offer quality technical education to rural students who are ambitious to become engineers. NSS, YRC provide opportunities to students to commence their service activities. We encourage humanitarian action among our students through our active YRC unit, which includes blood donation camp, conduct essay competition and award prizes, Practice of Health habits and social service. NSS unit conducted many programs like World No Tobacco Day, Health Checkup camp, Covid Vaccination camp, Voter's awareness camp, etc

The few common initiatives undertaken for the same are as follows;

- Fifty members from the Tamil Forum participated in the Tamil Nadu government's Tamil Dream program on August 18, 2023. Students won prizes in the competition.
- On November 18, 2022, NDL Club organized a Quiz program aiming to familiarize Tamil culture, proverbs, Thirukkural, and writers among the students.
- SSMIET-Tamil Forum's "My Favorite Book" speech competition was conducted to emphasize the importance of books. Students spoke passionately about their favorites, and winners were awarded with prizes.
- The SSMIET NDL Club's discussion forum on Online Education on November 24, 2022, aimed to acquaint students with merits and demerits of online learning
- A Village survey activity under UBA has been done to collect data the surveys were conducted with 33, 108 and 76 students on 15.03.23, 17.03.23 and 18.03.23 respectively.
- A two-day National Level Conference on "Rural Innovations" was conducted to portray rural challenges as research opportunities, organized under UBA.
- An awareness program on "Child Marriage Prohibition" conducted by NSS on 12.12.2022, and 190 students have participated and child marriage issues was the topic has been addressed by the resource person.
- 200 students and 19 faculty members have participated in the plantation of 6 lakh saplings in 6 hours on 23.12.2022 in Oddanchatram Taluk, under NSS organized by government of Tamilnadu
- NSS organized an Intensive Sanitation Camp on 18.03.2023 in Kuttathu Avarampatti Village, with 30 NSS volunteers, 2 faculty members.
- NSS organized a World Blood Donor Day on June 14th, with 20 volunteers, doctors, and nursing staff members to raise the awareness.
- In association with ISHA, SSMIET yoga club organized a session for students on June 21, 2023, 100 students participated and get benefited.

File Description	Document						
Upload Additional information	View Document						
Provide Link for Additional information	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-01:**

# 1. Title of the Practice: Profiling and Mentoring

# 2. Objectives of the Practice:

- To explore a student's attitude, skills and interests to assess their personality.
- To discover their unknown skills and talents inside them thereby decide which career path to take while they move forward in their studies.
- To minimize dropouts from institution
- To improve performance and reduce stress of the students through personal Counselling

#### 3.The Context:

A transition to professional college life can be challenging for students, particularly those from limited academic resources family. The unfamiliar environment often induces stress, and students may experience a sense of complexity and hesitation in the classroom,. One solution is to cultivate mentor-student bonds for emotional stability, clarity in thinking, and holistic progress.

#### 4. The Practice:

- Each teacher is assigned around 15-20 students for the complete duration of their study
- They meet at least once in a week to discuss, clarify and share various problems which may be personal or academic.
- The mentors encourage the students to participate in co-curricular and extracurricular activities and sports
- Their academic performance and other activities are all recorded and also keep in touch with the parents on their attendance, test performance, fee payment, examinations on weekly basis
- Mentors take special care of weak students, who are given advice on how to study, prepare a time table for study and clarify the doubts and also given notes to study
- Based on the results of the Psychometric test, students are classified into four groups as follows
  Full Attention Needed, Moderate Attention Needed, Minimum Attention Needed, SelfMotivated. It is proposed to have individual counseling for Full attention needed students,
  Therapeutic Group session for Full attention needed and Moderate attention needed students and
  Life skill Workshop Session for Minimum attention needed and self-motivated students.

#### **5.Evidence of Success:**

The effectiveness of this approach is substantiated by a myriad of positive outcomes, reflecting a notable

Page 80/87 07-02-2024 10:28:24

enhancement in various facets of academic and campus life. Noteworthy indicators of success encompass elevated **university ranks**, marked improvements in **examination results**, a discernible **surge in attendance rates**, a substantial **reduction in dropout incidents**, and heightened engagement in both **co-curricular and extracurricular activities.** The establishment of healthy relationships with faculty members contributes significantly to this sense of ease, fostering an environment where students can thrive academically, emotionally, and personally.

# 6.Problems Encountered and Resources required

Allocating dedicated time within faculty schedules for mentoring activities is vital, recognizing and valuing mentorship as an integral part of the academic role. There are no limitations or constraints faced during implementing the program.

# **Best Practice-02:**

# 1. Title of the Practice: SSMIET Model

# 2. Objectives of the Practice:

- To encourage students to actively participate in the Internships, Technology training, and student projects in core, health care, and rural technology sectors
- To provide practical, hands-on experience to students while addressing critical societal needs.
- To empower students to evolve into successful entrepreneurs.

#### 3.The Context:

The SSMIET Model is structured around fostering robust connections between the industry and the institute, as well as establishing an effective incubation setup. This model serves as a strategic framework for enhancing collaboration and synergy between academia and industry, ensuring that students benefit from real-world insights and experiences.

#### 4. The Practice:

- To operationalize the SSMIET Model, The initial phase involves delivering comprehensive *Technology training* to students by industry experts, ensuring a minimum of 50 hours with hands- on training in every semester.
- Establishment of *Memorandum of Understanding (MOU)* with diverse industries is used for facilitating student *Internship* and also led to invite industry experts for Technology training.

Page 81/87 07-02-2024 10:28:24

- SSMIET Students are encouraged to attend the Internships from third year itself.
- Students are motivated to undertake end-semester projects or mini-projects with a focus distribution of 50% in core areas, 20% in healthcare and rural technology, and 10% in societal domains, fostering a well-rounded and impactful academic experience

#### **5.Evidence of Success:**

- The success of our initiative is manifested through a significant upswing in student involvement and active participation in internships.
- There has been a substantial rise in the conversion of internships into job offers.
- This initiative has resulted in the establishment of 36 Memoranda of Understanding (MOUs), delivery of 56 technology training sessions, and the facilitation of 129 internships.
- The emphasis on practical application is evident in initiatives like the Industry Hackathon, where students actively participated and 44 proposals from SSMIET students were submitted in the prestigious MSME IDEA HACKATHON 3.0 (WOMEN).

# 6.Problems Encountered and Resources required:

- There are no limitations or constraints for sending students to participate in the Industry Internships
- But unpaid Internships making it financially challenging for students, especially those with limited resources.
- Internship durations are often fixed, which may not provide students with a comprehensive understanding of the industry or sufficient time to contribute meaningfully

File Description	Document
Best practices as hosted on the Institutional website	View Document
Any other relevant information	<u>View Document</u>

#### 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:**

# **Student Project Ideation Concept (SPIC)**

The educational philosophy followed in SSMIET campus aims at producing students who could meet the challenges at the international technical job market. Our students are groomed as professionals in their field of study and are nurtured to compete with any competitor from any part of the world. SSMIET encourages students to undertake industry-related projects which could involve hands-on experiences, practical applications, or collaborations with industry partners to enhance students' understanding and skills in real-world contexts.

The SPIC plays a vital role in connecting educational philosophy of SSMIET and also make students to face the challenges present in the industry, possibly facilitating opportunities to address or engage with real-world issues. At the outset, the students from all departments are instructed to participate in this initiative.

SPIC commences its activities by gathering 155 problem statements sourced from 13 diverse companies, which are then communicated to SSMIET students. The selection of companies engaged in SPIC aligns with the SSMIET Model, either through pre-existing Memorandums of Understanding (MOUs) with SSMIET or their involvement in events like Technical Talks, seminars, or technology training organized at SSMIET

Implementation of **SPIC** consists of various stages;

#### • Identification of Industry Needs

Collaborate closely with industry representatives to identify specific problems or challenges and communicate frequently to get problem statements

#### • Communicate Problem Statements to Students

Clearly communicate the identified problem statements to students, ensuring a comprehensive understanding of the challenges they will address during their work.

#### • Student Project Selection

Encourage students to express their preferences and interests in addressing specific problem statements. Implement a fair and transparent process for assigning students to projects.

#### Assigning Project Supervisor

Upon choosing their preferred problem statements, students are paired with a Project Supervisor possessing extensive knowledge related to the selected problem statements.

There are maximum 4 students per project team under one supervisor.

Besides, this year, a new process is initiated for the evaluation of final year projects in four stages with the support of industrial experts as one of the reviewers to ensure industrial relevance and implementation of emerging technologies in student's projects the project presentation is organized into four distinct phases, outlined as follows:

#### a) Zeroth review:

During this phase, students are directed to conduct a PowerPoint presentation which focusing on the project overview. This includes crafting an abstract, block diagram for project work, identifying the base paper, and elucidating the tools intended for use in their project work.

#### b) First review:

During this phase, students are guided to finalize 70% of their project work including literature survey, coding part or prototype and compile the Project book in accordance with the Anna University format.

#### c) Second Review:

In this Phase, students are instructed to submit their complete project work and Project demo session is also arranged

#### d) Final review:

Following the Anna University format, an end-semester Viva-Voce examination is scheduled, wherein an external examiner will be appointed. Marks will be assigned based on the student's performance during the examination.

#### • Industry Mentorship

Match each student project team with industry mentors who can offer guidance, provide feedback, and share valuable insights throughout the duration of the project.

#### • Progress Monitoring

Implement a system for monitoring and tracking the progress of each project, including regular check-ins with both students and industry mentors.

#### • Feedback Mechanism

Creating a feedback loop where industry representatives can provide input on the relevance and feasibility of the proposed solutions

#### Documentation and Reporting

Encourage students to document their project work, methodologies, and findings.Require regular progress reports and a final comprehensive report at the end of the project

#### • Project Showcases

Coordinate events where students can present and showcase their project outcomes to the Academic Advisory Council (AAC), industry partners, and the wider academic community.

#### • Evaluate Project Impact

Assess the impact of the projects on addressing the identified industry problems. Use feedback from industry partners to measure the practical relevance of the solutions proposed by students

#### • Continuous Improvement

Use insights from the AAC and industry partners to continuously improve the process, ensuring that future projects remain aligned with industry needs

#### • Recognition and Awards

Recognize outstanding projects and contributions from students, faculty, and industry mentors through awards or commendations.

In conjunction with the implementation phases, the 'Student Project Ideation Workshop (SPIW-23)' took place on December 24, 2023, at SSM Institute of Engineering and Technology (SSMIET), where industry problem statements were displayed. Students from various departments who actively engaged in selecting their preferred problem statements. Each Project group, consisting of 3 or 4 students, had the opportunity to choose a maximum of two problem statements. After making their selections, students were required to register their batch details at the designated counter, and Project supervisors were subsequently assigned based on their specific interests and chosen problem statements.

The institution takes pride in serving the society and country by providing trained human resource in the field of engineering, grooming research scholars and knowledgeable entrepreneurs, generating many innovative projects, organizing training programs and serving as a center for conducting national level online examinations, thus leaving no stone unturned in the process of creating a better future for the people of this part of the nation.

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# 5. CONCLUSION

#### **Additional Information:**

SSMIET, with its high-class infrastructure, state-of-the-art laboratories, workshops, library available to the students, institute focusses on its continuous improvement in the following areas to act as the gateway to a transformative educational journey where aspirations take flight and innovations shape the future.

- Industry Collaborations and Placements
- Faculty Expertise and Research Publications
- Student Support Services
- Innovative Learning Initiatives
- Community Engagement and Social Impact
- Accreditations and recognitions

# **Concluding Remarks:**

In conclusion, SSMIET stands as a premier institution committed to fostering academic excellence, holistic development, and innovation in engineering education.

With a robust infrastructure, industry connections, dedicated faculty and staff members, comprehensive student support services, SSMIET aims to continue its trajectory of growth and success in shaping future engineers.

By providing a nurturing environment that encourages critical thinking, creativity, and practical application of knowledge through "SSMIET Model", SSMIET aims to empower students to become leaders in their fields and contribute meaningfully to the society and nation.

This sets SSMIET apart as a distinguished institution in the realm of engineering education.

SSMIET aspire to inspire the next generation of engineering leaders and innovators.

Page 87/87 07-02-2024 10:28:24