SELF STUDY REPORT

FOR

3rd CYCLE OF ACCREDITATION

SONA COLLEGE OF TECHNOLOGY

SONA NAGAR, THIAGARAJAR POLYTECHNIC COLLEGE ROAD
SURAMANGALAM (PO), SALEM - 636005
636005
www.sonatech.ac.in

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Established in 1997, Sona College of Technology (SCT) is an autonomous institution approved by All India Council for Technical Education and affiliated to Anna University. Located in Salem, SCT is a flagship institution of the Sona Group. Under the able leadership of Chairman, C.Valliappa, and the guiding principles of the founders, Sri Karumuttu Thiagarajan and Sri M.S Chockalingam, SCT offers quality technical education.

From 165 students in 1997 with just 3 programmes, the college now has 5000 students and offers 12 Undergraduate, 11 Postgraduate, MCA, MBA, and Ph.D in all major disciplines. Out of the 12 under graduate programmes offered, all the eligible programmes and the MBA are accredited by the National Board of Accreditation.

SCT has received Grade “A” accreditation from the National Assessment and Accreditation Council in the Second Cycle, from 2018 to 2023. Sona is ranked among the top 200 colleges by the National Institutional Ranking Framework(NIRF). The institution is also approved by UGC under 2 (f) and 12 B sections and has been certified with ISO 9001:2015 for quality enhancement. The DSIR has recognised Sona as a Scientific and Industrial Research Organisation.

Sona's 36 Advanced Research centres, housed in an exclusive R&D block, were inaugurated in 2009 by former President, Dr. A.P.J. Abdul Kalam. SonaSPEED, one of the advanced research centres, has designed and developed Stepper Motors for ISRO’s prestigious missions such as Chandrayaan-3 moon mission, autonomous landing of RLV and Gaganyaan mission. It also develops precision motors for National Institute of Ocean Technology.

SCT is a pioneer in leveraging digital teaching- learning tools like Lecture Capturing, Blackboard Learning Platform and MOODLE.

Up to thirty student clubs nurture a wide spectrum of students’ artistic and cultural interests. Spread over 3 floors, the modern library is a knowledge power house having about 1 lakh textbooks and other forms of reference materials.

The AICTE-CII Best Industry Linked Institution Award for seven years stands testimony to Sona’s strong industry collaboration. It is also evident in the curriculum design with involvement of industry experts, which consistently results in 95% placements, students taking up entrepreneurship and pursuing higher education.

Vision

To become an institute of great repute, in the fields of Science, Technology, and Management studies, by offering a full range of programmes of global standards to foster research and to transform the students into globally competent personalities.

The College takes the following efforts to achieve the vision:

- The college equips the students with knowledge and skills in their chosen disciplines to help them bring out their best so that they can make use of their trainings to face challenges of life. The college envisions that all students progress in their chosen career paths such as higher education, entrepreneurship and placement in reputed organisations.
- The college provides students with education for a meaningful contribution towards life, making them well rounded personalities. The overall approach to education will encompass identification of hidden talents among the students providing them with the opportunities to realise their full potential and make them leaders in their chosen field.
- The college strives to shape them into responsible citizens of the country by instilling spiritual and humanistic values, ethical conduct and the spirit of patriotism into the students resulting in students' dedication and service to the nation. The college teaches the students to respect the features of the Indian constitution and live harmoniously with deep belief in inclusivity and a mutual sense of respect towards people from diverse background.
- With the goal of achieving greater levels of quality in both teaching and research, SCT envisions to develop a community of highly knowledgeable and devoted faculty members who are committed to uphold the institution's fundamental values.
- The college is committed to realise its global vision, nurture student centric teaching environment and gain synergy through team work. The college looks to continuous improvement by implementing best-in-class Quality Management Systems

In sum, Sona College of Technology aims at producing globally competitive individuals through international programmes and effectively transform students into balanced personalities with practical skills. The vision of the institution extends beyond education to focus on leadership, foster nationalism and ethical values, the respect for diversity and a continuous commitment to principles of the nation.

Mission

Sona College of Technology is a private engineering institution that offers engineering degree programmes at under graduate level and post graduate level, computer applications and management studies at post graduate level and doctoral programmes in the areas of engineering and science and humanities.

The college aims to provide a full-fledged education, to produce graduates with competency to excel in the organizations they serve and to cater to the needs of the community as a whole.

Our mission for next three years will be

- To offer Graduate, Post-graduate, Doctoral and other value-added programmes beneficial for the students
- To establish state-of-the-art facilities and resources required to achieve excellence in teaching-learning, and supplementary processes
- To provide Faculty and Staff with the required qualification and competence and to provide opportunity to upgrade their knowledge and skills
- To motivate the students to pursue higher education, appear for competitive exams, and other value added programmes for their holistic development
- To provide opportunities to the students and bring out their inherent talent
- To establish Centres of excellence in the emerging areas of research
- To have regular interaction with the Industries in the area of R & D, and offer consultancy, training and

testing services
- To offer Continuing education, and Non-formal vocational education programmes that are beneficial to the society
- To inculcate entrepreneurial attitude in the students and to provide a platform to start their own startups in the campus.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- **Academic Excellence**
  - Grade 'A' from NAAC.
  - NBA accreditation for all the eligible programmes.
  - Adopting CBCS under Autonomous Status
  - ISO 9001:2015 Certification
- **Significant honours in 2023.**
  - Institution of Engineers (India) IE (I)’s Engineering Education Excellence Award 2023 (Gold)
  - NIQR – TVN KIDAO Award for the Best Outstanding Educational Institution-2023 given by the National Institute for Quality and Reliability (NIQR), Chennai.
  - Listed among the top 200 institutions by NIRF
  - No 1 position in NPTEL exams under Faculty Performance category for 5 consecutive times
  - Three time winner of Smart India Hackathon
  - IBM's Engineering Education Excellence Award
- **Faculty Credentials**
  - Total faculty count: 291
  - Faculty with Ph.D: 154
  - Faculty pursuing doctoral programmes: 96
- **Proximity**
  - Near Smart City Salem's airport, railway terminal, and main bus stand.
- **Strong Research Focus and Industry Connect**
  - Well-built association with organisations such as ISRO, NIOT, and other research organisations
  - Strong industry connect recognised with AICTE-CII Awards for best institution-industry partnership.
- **Faculty Development:**
  - Faculty qualifying and emerging as toppers in NPTEL / MOOC Courses
  - Faculty’s intensive involvement in research activities – 600 articles published, 127 patents filed, 17 granted
- **Cultural Diversity** owing to the presence of international students
- **Learned, academic-oriented and proactive Management** with 100 years of experience in industry, business and education.
- **Infrastructure and Resources:**
  - Well-furnished classrooms, state-of-the-art laboratories, wi-fi campus and maintenance of green and serene atmosphere.
- **Entrepreneurial Focus**
  - Start- ups established with the support of Sona Incubation Foundation

- **Added Focus on Skill Training and Top-Up courses**
    - Soft and Life Skills-based training
    - Diploma and certificate programmes offered by Continuing Education Centre
    - Foreign language courses - Japanese, French, German and Korean
- **Student Support Initiatives:**
    - An exclusive Scholarship Committee to guide students to apply for various scholarships
    - Grievance Redressal system to ensure safety and fairness for students
- **The Track My Sona** device to monitor and maintain assets
- **Library Resources:**
    - Dedicated multi-storied block with more than 1 lakh books and other resources
- **Spacious Sports Facilities**

Institutional Weakness

- **Expansion of the campus is limited by its presence within the city limits.**
- **Student Skills Improvement:**
    - Nearly 10% students' English communication and soft skills are found below par owing to their background and exposure.
    - Rural Students require more exposure to technological advancements
    - Students with low cut-off require more inputs.
- **Faculty Publications:**
    - Need for higher quality publications.
    - Early research entry desired - This enables the less experianced teachers to engage in research, early in their career.
- **Limited scope for funding from Government Bodies**

Institutional Opportunity

- **Increasing demand for engineers in emerging fields and interdisciplinary programmes**
- **Curriculum Development:**
    - Adopting Choice Based Credit System under Autonomous Status: Tailor made curriculum based on industry needs
    - Offering Programmes in the latest technology such as Artificial Intelligence and Machine Learning, Artificial Intelligence and Date Science, Bio Medical Engineering, Mechatronics, Cyber Security, etc.
    - Effective implementation of National Education Policy 2020 enhances strengths to fulfill objectives.
- **ICT Tools:**
    - Opportunity to reach out to a wider audience through Tech-enabled teaching and assessment methodology.
    - For example, platforms such as Blackboard, MOODLE, and HireMee.
- **Systems and Infrastructural Potential**
    - Promotion of inter and trans-disciplinary research for overall development of industry in emerging areas meeting the demands of Industry 4.0.
    - Potential being tapped for revenue generation through consultancy activity, training, and capacity building programme.

- A strong eco-system of labs, business incubation centre, institutional innovation centre, etc.,backed by tie-up with IIT (Madras) and ideation platform named Power-on-Me, are advantageous to guide and encourage students into entrepreneurial future plans.
- Facilities and resources for adding new continuing education programmes and skill development trainings in diverse and emerging fields to top-up regular courses.
- Facilities for acting as host institution for national and international level academic conventions and cultural meets.

- **Cultural Diversity:**
  - International students presence as a tool for creating positive cross cultural relation.
- **Learned, Academic-orientated and Proactive Management:**
  - Experienced management with 100 years of experience in industry, multi-sector business and in education.
  - The Management is proactive and student-centric which ensures that the academic standards are consistently met and continuously improved upon.
  - The Management team promotes open communication channels among the stakeholders. They also encourage collaboration and teamwork across departments to achieve shared goals.
  - The Management embraces innovation and readily adopts new technologies and teaching methodologies to enhance the learning experience.
- **Community Engagement**
  - Strong presence in the society through community engagement programmes.
  - Establishment of Rural Woman Technological Park (RWTP)
  - CSR Initiatives: beneficiaries - around 6,000 people have got benefitted by Sona's CSR Initiatives.

Institutional Challenge

- **Decline in students' interest due to the impact of COVID 19 on students' motivational level**
- **Balancing Research and Contributions**
  - Research diversity and inclusion while maintaining a focus on research at the present level of expenditure.
- **Geographical Challenges**
  - Presence of a very few core and IT industries within the Tier 2 City has an impact on placement.
- **External Factors**
  - Delay in admissions due to counselling system
  - Absence of a qualifying entrance exams for engineering courses

SCT will leverage its strengths in research, infrastructure, and academic excellence to capitalise on the increasing demand for engineers in emerging fields. By expanding its collaborations with ISRO, NIOT, and the industry, the college can expand its interdisciplinary programs in AI, ML, and Data Science. Additionally, the college can leverage its strong brand reputation and academic excellence to enter new markets or introduce programmes aligned with emerging technologies. To protect its reputation, the college should invest in faculty development and research initiatives. The ultimate goal is to attract top talent, enhance admission quality and establish Sona as a leader in emerging fields while maintaining academic excellence and fostering industry connections.

Sona's strategies to mitigate impact of weakness against threats would include, strengthening industry partnerships beyond local limits which can counter the impact of geographical challenges on placements.

Focusing on comprehensive skill development programmes can address both language and soft skill barriers and will enhance student employability. Efficient allocation of available funds towards faculty development and research support can mitigate the impact of financial fluctuations on research goals.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

As part of its progressive values, Sona College of Technology continually evolves its curriculum to meet the changing needs of both the students and the industry. The institution has been adopting the University Grants Commission's academic regulations for autonomous institutions since 2010, allowing for customisation to meet the unique demands of both industry and students. The Board of Studies (BOS) and the Academic Council have the authority to approve the curriculum, ensuring its applicability and timeliness.

Its curriculum development, design, planning, and execution emphasise flexibility under the Choice Based Credit System, with the goal of producing tangible outcomes through the acquisition of a variety of skills and the practical application of knowledge. CBCS was launched in 2015. The CBCS curriculum focuses on programme-specific goals, educational objectives, and specific educational outcomes, promoting employability and entrepreneurship. Students can also select multidisciplinary /interdisciplinary courses that incorporate values and critical life skills.

SCT has a Local Chapter of the National Programme on Technology Enhanced Learning (NPTEL), encouraging the students and faculty members to pursue additional courses and training in transdisciplinary knowledge and skills.

SCT has 7 new programmes in the emerging area like Artificial intelligence, Data Science, Wireless Mobile communication, and interdisciplinary areas such as Mechatronics, Bio-Medical, and MBA in Family Business, a module, named Bagawad Gita in Management was introduced during the last 5 academic years. Also, a course in the pipeline is a graduate specialisation in Cyber Security. The college provides the students with the opportunity to learn foreign languages, such as Japanese, French, German, and Korean.

The curriculum offers credit-based Industrial Training, Internships in Industries, industry-oriented courses, and Industry mentorship for the students to enhance their technical skills. The NEP2020 encourages students to select open elective and core elective courses to foster multidisciplinary education.

SCT aims to bridge the gap between academia and industry by collecting and analysing the structured feedback from all its stakeholders and as a result over 25% of the courses received changes in the last five years. In conclusion, SCT provides a flexible and adaptable curriculum that emphasises multidisciplinary learning and continuous development.

Teaching-learning and Evaluation

Sona College of Technology admits students to the programmes through the Single Window System (controlled by the Government of Tamil Nadu) and the Management Consortium, complying with the norms of AICTE and

Anna University. The students' profile reflects the diversity of different community backgrounds as per the reservation norms (69%) of the Tamil Nadu government.

The institution identifies the learning level of students (advanced, average, and slow learners) and makes special efforts to educate them based on their needs. The institution implements various traditional and innovative methods to provide the best learning experience to the students, as our caption says, "Learning is a Celebration." As a result, students participated and won in various national/international level competitions. Teachers practice various learning management tools, like Blackboard and Lecture Capturing System, for effective teaching. Teachers use e-resources like online courses, digital libraries, and online educational learning/assessment platforms to enrich the learning experience of the students. The institution practices a structured mentoring system (average mentee-mentor ratio 20:1) to understand and help the students. The advanced teaching-learning methodologies help students gain higher-order thinking skills.

The institution consistently improves the standards of its faculty, emphasising on completing doctorates and upgrading their knowledge base by training in industries and undergoing courses offered by NPTEL, etc. The teachers, students, and staff are informed to strictly follow the academic schedule. The teachers prepare teaching plan and follow as per the academic schedule provided. The department frames PEO, PO, PSO, and CO in accordance with NBA requirements. The outcomes are disseminated to the stakeholders through various online/offline platforms. The outcomes are evaluated according to structured procedure, which helps identify the gap and develop innovative/creative teaching approaches.

To ensure the best teaching-learning experience Sona sanctions a sufficient number of teaching posts and maintains good student-teacher ratio (19:1), as mandated by AICTE and Anna University. In CAY (2022–23), our institution has around 60% of teachers with PhD and teachers with approximately 14 years of average experience. The institution having very good teacher retention ratio (70%) in the last 5 years. The assessment and evaluation process is effectively handled by a well-structured system.

Research, Innovations and Extension

The college emphasises the facilitation of research activities which is evident in the significant number of 51 research projects with grants value worth Rs 613.82 Lakhs received from diverse governmental and non-governmental organisations. This focus extends to the publication of 1595 research papers in both national and international journals, showcasing the faculty's scholarly contributions. The college has instituted the Sona Doctoroal Fellowship programme under which research scholars are selected and given monetary assistance to pursue their Ph.D. programmes.

With the aid of state-of-the-art facilities and technology, our 36 Advanced Research Centers have effectively completed several high-profile projects for prestigious organisations including Indian Space Research Organisation (ISRO), National Institute of Ocean Technology (NIOT), District Rural Development Organisation (DRDO), and more. Particularly, the institution's innovative technical breakthroughs are highlighted by its contributions to India's space missions like Chandrayaan - 3 and the ensuing Gaganyan Space missions.

Furthermore, the Sona's capacity for collaborative industry consulting and R&D is enhanced by the DSIR designation of the college as a SIRO. Teachers and students are further encouraged to actively participate in such activities by the institution's revenue-sharing model for testing services and consulting projects and the institution has earned Rs. 600.49 Lakhs through various Consultancy Works.

The institution places high importance to community engagement and outreach initiatives through NSS, NCC, Red Cross, Women Empowerment Cell, and YRC units. The HEI has organised 382 activities and has provided a forum for the students to discuss social concerns and hone their leadership skills, which greatly enhances their preparedness to contribute to society. The college has been awarded by the Deputy Director General of NCC for its outstanding support of National Cadet Corps activities. Our NSS units have been consecutively awarded by Anna University during 2017 – 2022/23 for the Best Programme Officer, Best Male and Female Volunteer.

The institution has Centre for Social Responsibility initiatives to empower the under-privileged and the socially disadvantaged sectors of the community by offering Training and Development in Employability Skills and Entrepreneurship Initiatives with the participation of the community and in collaboration with the Government and Corporate.

Infrastructure and Learning Resources

Sona College of Technology has a well-built infrastructure that is spread over an area of 139294 m2 comprising 7 academic blocks with 110 classrooms, 4 hostels, 3 auditoriums, and 10 conference/seminar halls for conducting various co-curricular and extra-curricular activities. The institution also has a sports complex, gyms, swimming pool, music clubs, and recreation clubs to rejuvenate the students periodically. All the classrooms, seminar/conference halls, and 2 auditoriums are equipped with ICT facilities and 100% power backup. The institute has 62 laboratories, 6 industry-supported laboratories, and 15 research centres spread over various departments.

A world-class digital library was set up in a two-storey covering an area of 8553 m2 and individual library was set up at each department. The central library uses AUTOLIB 2017, an open-source software to stack 33663 book titles, 85451 book volumes, 3675 NPTEL lectures, 1568 e-journals, and 11498 e-books. The library provides unhindered remote access to various e-resources to faculties and students. Sona Central Library has implemented a Radio Frequency Identification (RFID) system for users by automating book check-in and check-out processes.

The institution has state-of-the-art IT facilities such as 2075 computers, 24 servers, 84 laptops, 1688 mail accounts, 70 lecture-capturing classrooms, 169 projectors, 119 Wi-Fi access points, 122 switches, 6 smartboards, 46 UPS, and 57 printers. The entire campus is Wi-Fi enabled with uninterrupted 1 Gbps internet connectivity. The institution is under 24x7 surveillance with CCTV cameras and has in-built automated software such as MIS, Hiermee etc. for academic and administrative services. Sonaversity, a multimedia centre is available to support teaching-learning by producing high-quality audio-visuals, graphics and texts. The centre is also involved in designing brochures, and pamphlets for various events and functions within the institution.

The institution has a well-established maintenance policy and uses MIS and Track My Sona platform to resolve maintenance issues. The institution has systematized policies for budget allocation and expenditure for infrastructure, library, and maintenance of infrastructure.

Student Support and Progression

Student Support and Progression are pivotal aspects in ensuring a holistic educational experience and growth at Sona College of Technology. The institution takes diverse measures to provide the students with a conducive environment for comprehensive development.

The institution offers various financial aids, including merit scholarships, sports scholarships, and special scholarships. The management scholarship ranges from Rs. 10 lakhs to Rs. 35 lakhs every year. It also administers diverse scholarship schemes offered by the government, non-government, and private corporate bodies. In the last five years, 18,301 students were benefited with a sanctioned amount of more than 30 crores.

Sona College of Technology goes beyond academic support, providing counselling, soft skill development, remedial coaching classes, tailor-made foundation course for freshers and bridge course for lateral entry students. The incorporation of yoga, meditation, and a dedicated E-learning language lab further enrich the students' experience, fostering integrated growth and enhancing communication skills.

Sona establish a system to listen to the grievances and periodic meetings are conducted by different committees to resolve the grievances and provide remedies to the complaints as applicable.

The emphasis on placements and higher education progression reflects the institution's dedication to delivering quality education and expanding its alumni network. The college has a dedicated placement and training department aiming at 100 percent placements, facilitating job opportunities in reputed companies like, Infosys, Amazon, JSW, to mention a few. The training cell offers preparation for competitive exams like GATE, GRE, and the Civil Service exams of the State and Central Governments. To promote well-rounded growth, pupils are also encouraged to thrive in extracurricular activities including sports and cultural events.

SCT has an active Student Council that serves as the institution's apex student governance body, with the participation of students from all the programs offered by the college.

The establishment of a vibrant alumni association creates a network of support by acting as a liaison between the college and its former students. Participation from alumni by delivering guest lectures, and conducting mock interviews – all these and more, enhance the educational process and give the students access to mentors and real-world knowledge.

Governance, Leadership and Management

Sona College of Technology aims to achieve excellence in all the necessary quantitative and qualitative metrics in the vital areas of Governance, Leadership, and Management.

The Chairman, Vice-Chairmen, Principal, Directors, Deans, representatives from UGC, the State Government, Anna University, business leaders, and academic members constitute the institution's Governing Body. Decision-making is ensured across the board for the institution by this diversified committee.

The institution supports decentralization in academics, administration, research and development, and consulting while offering infrastructural and financial assistance. The effective deployment of the Learning Management System, which enables better education, is indicative of modernisation in education.

Regular meetings of various institutional bodies contribute to the overall development, incorporating suggestions and implementing regulations like the Choice Based Credit System (CBCS) following recommendations from the Academic Council.

SONA implemented e-governance in all the major key areas for the effective administration of all the activities.

Strong focus is placed on devising an effective Performance Appraisal System for staff members, both teaching and non-teaching, to ensure their growth and accountability. The institution has established service rules and policies promoting professional development through participation in conferences, seminars, and publications by the staff. Nearly 80% of the teaching faculties provided financial support to attend national and international level conferences and workshops in the last five years.

For efficient financial management, regular internal and external audits are conducted for accountability in financial matters. Strategies are in place for mobilising funds and optimising resources from various sources.

The Institutional Quality Assurance Cell (IQAC) is a central administrative body overseeing quality-related activities, including professional development programmes like FDPs, training, and participation in the developmental initiatives to enhance educational quality.

The institution places considerable focus on IQAC activities in implementing quality through suggestions and feedback received from accreditation agencies and statutory bodies, underlining the commitment to constant improvement. Regular meetings of the IQAC are conducted to collect, analyse, and utilise feedback for valuable enhancements within the institution.

Furthermore, the institution maintains an open system of administration, ensuring grievances from both staff and students receive utmost attention through mandatory redressal mechanisms.

Institutional Values and Best Practices

Sona College of Technology promotes an innovative and sustainable culture while embodying a dedication to institutional principles and best practices. A strong focus on gender parity, environmental awareness, inclusivity, and professional ethics, perfectly aligns with the ethos of the culture of the institution.

Sona College employs a number of sustainable practices, including water harvesting, efficient waste disposal, the use of low-power equipment, waste-water recycling, paper waste recycling, the use of renewable energy sources, use of LED lights, power-efficient equipment and reduced power usage. Creating a green campus, restrictions on motor vehicle usage, use of battery-powered vehicles, and ban on plastic usage are a few examples of the actions that demonstrate the institution’s environmental sensitivity. Facilities are available for solid waste management, liquid waste management. A biogas plant has been installed to turn waste into sustainable energy. Green audits and environmental audits are done regularly by external agencies and reports are generated and maintained not only to ensure compliance with environmental protection but also to demonstrate commitment to sustainability.

The Student Speaker's Forum, a strong focus on the National Programme on Technology Enhanced Learning (NPTEL), Entrepreneur Development Centre, foreign language training and the college's commitment to academic success are some of the strongest attributes of Sona College.

The Institution has facilities like ramps, lift, Divyangjan-friendly washrooms, signage including a tactile path and screen-reading software for differently-abled students.

The strong institutional values and best practices of Sona College demonstrate its dedication to quality, sustainability, diversity, and innovation. SCT integrates Sustainable Development Goals into the heart of its functioning. The college fosters research and innovation and implements green practices such as energy

conservation, waste reduction and water management.

Sona CSRI is dedicated to enhancing employability skills for the betterment of marginalised communities and to improve their economic status. The ‘Waste to Wealth’ initiative focuses on manufacturing eco-friendly, cementless, dry interlocking blocks and curtain wall panels.

Sona College has won the prestigious AICTE - CII Award 7 times for being the Best Industry Linked Technical Institute. Also, the institute has received Clean and Green Campus recognition awards.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	SONA COLLEGE OF TECHNOLOGY
Address	Sona Nagar, Thiagarajar Polytechnic College Road Suramangalam (PO), Salem - 636005
City	Salem
State	Tamil Nadu
Pin	636005
Website	www.sonatech.ac.in

Contacts for Communication					
Designation	**Name**	**Telephone with STD Code**	**Mobile**	**Fax**	**Email**
Principal	Senthilkumar S R R	427-4099999	9443366495	-	iqac@sonatech.ac.in
IQAC / CIQA coordinator	Suresh P	427-4099893	9443227627	-	suresh_p_g@sonatech.ac.in

Status of the Institution	
Institution Status	Private and Self Financing

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

Recognized Minority institution	
If it is a recognized minroity institution	No

Establishment Details	
Date of Establishment, Prior to the Grant of	15-07-1997

'Autonomy'	
Date of grant of 'Autonomy' to the College by UGC	02-06-2023

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

Details of UGC recognition		
Under Section	**Date**	**View Document**
2f of UGC	29-06-2009	View Document
12B of UGC	27-08-2010	View Document

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)				
Statutory Regulatory Authority	**Recognition/Approval details Institution/Department programme**	**Day,Month and year(dd-mm-yyyy)**	**Validity in months**	**Remarks**
AICTE	View Document	10-06-2023	12	
AICTE	View Document	10-06-2023	12	
AICTE	View Document	10-06-2023	12	
AICTE	View Document	10-06-2023	12	
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AICTE	View Document	10-06-2023	12	
AICTE	View Document	10-06-2023	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	Sona Nagar, Thiagarajar Polytechnic College Road Suramangalam (PO), Salem - 636005	Urban	17.58	52783

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	**Name of Programme/Course**	**Duration in Months**	**Entry Qualification**	**Medium of Instruction**	**Sanctioned Strength**	**No.of Students Admitted**
UG	BE,Mechanical Engineering,Mechanical Engineering	48	Plus Two	English	120	126
UG	BE,Electrical And Electronics Engineering,Electrical and Electronics Engineering	48	Plus Two	English	120	126
UG	BE,Electronics And Communication Engineeirng,Electronics and Communication Engineering	48	Plus Two	English	180	190
UG	BE,Computer Science And Engineeirng,Computer Science and Engineering Artificial Intelligence and Machine Learning	48	Plus Two	English	60	63
UG	BE,Computer Science And Engineeirng,Computer Science and Engineering	48	Plus Two	English	180	197
UG	BE,Computer Science	48	Plus Two	English	60	62

	And Engineeirng,Computer Science and Design					
UG	BE,Civil Engineeirng,Civil Engineering	48	Plus Two	English	60	62
UG	BTech,Information Technology,Artificial Intelligence and Data Science	48	Plus Two	English	120	125
UG	BTech,Information Technology,Information Technology	48	Plus Two	English	120	126
UG	BTech,Fashion Technology,Fashion Technology	48	Plus Two	English	60	63
UG	BE,Mechatronics Engineering,Mechatronics Engineering	48	Plus Two	English	60	63
UG	BE,Biomedical Engineering,BioMedical Engineering	48	Plus Two	English	60	60
PG	ME,Mechanical Engineering,Industrial Safety Engineering	24	Relevant BE	English	30	30
PG	ME,Mechanical Engineering,Engineering Design	24	Relevant BE	English	6	6
PG	ME,Electrica	24	Relevant BE	English	6	6

	l And Electronics Engineeirng,Power Systems Engineering					
PG	ME,Electronics And Communication Engineeirng,VLSI Design	24	Relevant BE	English	6	6
PG	ME,Computer Science And Engineeirng,Computer Science and Engineering	24	Relevant BE	English	6	6
PG	ME,Civil Engineeirng,Structural Engineering	24	Relevant BE	English	6	6
PG	ME,Civil Engineeirng,Construction Engineering and Management	24	Relevant BE	English	12	3
PG	Mtech,Information Technology,Information Technology	24	Relevant BE	English	6	6
PG	MBA,Master Of Business Administration,	24	Any UG	English	180	180
PG	MCA,Master Of Computer Applications,	24	Any UG	English	60	63

Position Details of Faculty & Staff in the College

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	0				0				0			
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit	0				0				0			
Sanctioned by the Management/Society or Other Authorized Bodies	41				41				219			
Recruited	23	18	0	41	26	15	0	41	122	97	0	219
Yet to Recruit	0				0				0			

Non-Teaching Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				144
Recruited	102	42	0	144
Yet to Recruit				0

Technical Staff				
	Male	**Female**	**Others**	**Total**
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				0
Recruited	58	9	0	67
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/ LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	23	18	0	26	15	0	41	34	0	157
M.Phil.	0	0	0	0	0	0	5	3	0	8
PG	0	0	0	0	0	0	76	60	0	136
UG	0	0	0	0	0	0	0	0	0	0

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

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

Details of Visting/Guest Faculties				
Number of Visiting/Guest Faculty engaged with the college?	**Male**	**Female**	**Others**	**Total**
	24	6	0	30

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

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	2908	37	0	0	2945
	Female	1605	29	0	0	1634
	Others	0	0	0	0	0
PG	Male	355	6	0	0	361
	Female	265	1	0	0	266
	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	90	83	70	57
	Female	54	53	25	22
	Others	0	0	0	0
ST	Male	8	3	1	1
	Female	1	4	2	0
	Others	0	0	0	0
OBC	Male	808	784	674	648
	Female	528	457	324	284
	Others	0	0	0	0
General	Male	33	27	30	36
	Female	34	28	22	15
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		1556	1439	1148	1063

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Biomedical Engineering	View Document
Civil Engineeirng	View Document
Computer Science And Engineeirng	View Document
Electrical And Electronics Engineeirng	View Document
Electrical And Electronics Engineering	View Document
Electronics And Communication Engineeirng	View Document
Fashion Technology	View Document
Information Technology	View Document
Master Of Business Administration	View Document
Master Of Computer Applications	View Document
Mechanical Engineering	View Document
Mechatronics Engineering	View Document

Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	The vision and mission of Sona College of Technology focus on offering a full range of programmes of global standards in the fields of Science, Engineering, Technology, and Management studies to foster research and transform the students into globally competent personalities. The CBCS curriculum focuses more on Humanities, Social Sciences, Management courses, Basic Science, Professional core and electives, open elective courses, employability enhancement courses, and mandatory courses. The curriculum offers credit-based Industrial Training, Internships in Industries, industry-oriented courses, Online Industrial courses, and Industry mentorship for the students to enhance their technical skills. The National Education Policy encourages students to select open elective and core elective courses to foster multidisciplinary education. Students can take up projects of a multidisciplinary nature with industry input and can transfer up to 2 credits. Students, who obtain NCC ‘B’ and ‘C’ certificates can transfer 3 credits each to one of the open electives in the curriculum. A mandatory course is offered to all undergraduate students on

	Environment and Climate Science. 1. Mini project is evaluated through a hackathon model. These courses enable the students to exhibit their critical and logical thinking abilities. 2. Two courses in Tamil language are offered. The title of the courses include topics on heritage and technology in Tamil. 3. A course on Indian Knowledge Systems - Essence of Indian Traditional Knowledge has been introduced. 4. Owing to its strong industry connections, Sona has been conferred with AICTE-CII award years since its inception in 2014. 5. The institution collaborates with foreign institutions such as Swinburne University, the University of Toronto, and Sultan Qaboos University for research, student exchange, internships, conferences, and many other activities. 6. To enable students to undergo programmes in foreign universities, an exclusive cell is functioning with a faculty member in charge to guide them. 7. SCT has strong research emphasis. It has 36 R&D centers involved in various open research problems. Sona's research proposals are being funded by various government agencies to the tune of Rs.15 crores. The institution has filed more than 100 patents and 17 patents have been granted. The products that are developed as part of the research activity are given back to the society for usage. 8. The college has a well built alumni network. The alumni are connected through the alumni portal established in association with Almashines. 9. Sona is positioned within 150-200 band in NIRF 2023 ranking by MHRD. 10. SCT has a team of qualified and experienced in-house trainers for training the students in aptitude, logical reasoning, and communication skills. 11. FDPs and pedagogy workshops for new and existing faculty members are conducted regularly. Every faculty members in our institution has to undergo NPTEL courses and attend FDP every year. 12. SCT has excellent infrastructure with smart classes and Lecture Capture Systems in every class. 13. Sona has state of the art indoor and outdoor sports facilities.
2. Academic bank of credits (ABC):	The college has registered under ABC and currently, in the process of rolling out for different batch of students add a few more points for ABC in Sona. The following good practices have been introduced towards the implementation of Academic Bank of Credits in view of NEP 2020: a. Introduction of interdisciplinary courses b. Credit transfers for

	NCC’s B and C certificate c. Credit transfers for students who complete product development in industry d. Credit transfers for completing NPTEL / MOOC Courses. The institution collaborates with foreign institutions such as Swinburne University, University of Toronto, Sultan Qaboos University for research, student exchange, internships, conferences and many other activities for internationalisation of education. The faculty members design and develop the curriculum based on the inputs from industry and other higher education institutions. They keep in mind the skillsets required to be earned after completing a course. Once the curriculum and syllabus are framed, the competency matrix is drawn to identify the faculty who have expertise in one or more courses. If any of the courses need expertise, identified faculty members are sent for training. They take up FDPs, online courses or courses offered by Industry.
3. Skill development:	Soft skills are being taught to students from their first year. The course is credited.carries one credit in each semester and they offered in the curriculum from semester 3 to 6. These courses help the students in acquiring problem solving skills. Apart from these credited courses, the students are offered different skill based courses through continuing education department. The Apparel /Assistant Fashion Designer certificate level program, was conducted under (AICTE - UGC) National Skills Qualifications Framework (NSQF) during the academic session 2020 – 2021. Around 23 students had enrolled and were benefited. Sona’s Centre for Social Responsibility Initiatives (Sona CSRI) empowers interested/disadvantaged sections of society through skill and entrepreneurship development, non-degree continuing education, and appropriate technology education/intervention/transfer programmes. The CSRI department has conducted the following programmes during 2020-21: • Assistant Fashion Designer • Dress Designing and Garment Making • Sewing Machine Operator • Multi Skilled Garment Technician • Self-employed Tailor A three week induction programme is organized for the first year students. The induction programme has a specific session on universal human values. The course imbibes values such as peace, satya, dharma, non-violence and others. All the engineering programmes

	have a course in professional ethics and human values during their final semester. The following measures are underway for skill development i. To design a credit structure that guarantees every student takes at least one vocational course before graduating. ii. Engaging industry veterans and master craftspeople to impart vocational skills so that it helps to bridge gaps in trained faculty provisions. The industry offers skill development courses for 1, 2, or 3 credits, specifically designed, conducted, and assessed by these experts. iii. To offer learners vocational education in ODL/blended/on-campus modular modes to learners.Different departments would conduct skill based education offered by industry through blended and online mode. For example, certification is offered through CISCO, network administration. Through L&T, “building information modelling” is offered. iv. NSDC association would facilitate all this by creating a unified platform to manage learner enrolment (students and workers), skill mapping, and certification. v. Skilling courses to be offered to students through in-campus, online and/or distance mode. vi. The following activities would be conducted to ensure skill development of students: 1. Industry mentor’s workshops and talks 2. Industry offered courses 3. Soft skills’ training 4. Internships 5. Industry immersion program 6. Participation in hackathons and other technical event
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	The curriculum includes non-credited mandatory courses such as Environmental Sciences, Indian Constitution and Essence of Indian Traditional Knowledge. The curriculum also includes courses on Tamil heritage and science. The institution has well-defined pedagogy methods. Pedagogy training and workshops are organised for new recruits and existing faculty members regularly. The faculty members are trained in the new developments in the teaching methods, setting of question papers with questions in critical thinking and strategies to identify the learning styles of the students to plan their teaching methods accordingly. Sona does not offer courses which are taught fully in Tamil,except for the Tamil courses which were introduced by the state Government last year. The Tamil course is taught in two modes (Tamil through English and Tamil through Tamil). i. Indian languages (Sanskrit, Pali,

	Prakrit and classical, tribal and endangered etc.)Tamil courses offered during the first and second semester, Tamilar Marabu; Ariviyal Tamil. ii. Indian ancient traditional knowledge.The undergraduate programmes offer a course on Essence of Indian Traditional Knowledge. iii. Indian Arts iv. Sona does not offer any course in Indian arts. However, we have fine arts club which encourages the students who are interested in Indian arts to participate in cultural festivals/competitions both infra and inter-collegiate events. v. Indian Culture and traditions. vi. Sona promotes Yoga to be practiced by all the students. All the Undergraduate and post graduate students have hours allotted in their timetable to learn Yoga. The following good practices pertain to the appropriate integration of Indian knowledge system in view of NEP 2020: 1. Offering course in Tamil which speaks about the language’s heritage and culture, scientific thoughts and studies. 2. Offering Yoga to all UG and PG students 3. Offering Environmental Sciences, Indian Constitution and Essence of Indian Traditional Knowledge 4. Has a separate club to promote the Indian arts
5. Focus on Outcome based education (OBE):	Outcome Based Education (OBE) aims to maximize the students' learning, consequently improving their understanding, application, and skills. In 2012, Sona implemented Outcome-Based Education(OBE). Several changes were made to integrate OBE fully into the academic curriculum and other activities. According to the guidelined for Outcome Based Education, every programme has Programme Educational Objectives (PEOs), Programme Outcomes (POs) specified by NBA, and Course Outcomes (COs). Every CO represents a measurable outcome regarding skills gained. In Sona, every course syllabus has been uniformly organised into five units, each designed to impart a specific skill. Each unit will have one Course Outcome (COs). The CO attainment is computed using the direct method (through formative and summative assessments) and indirect method (through course end survey). The COs of the courses have been mapped to POs. PO attainment is calculated based on the CO attainment. The lessons are taught in such a way that the students acquire skills and become industry ready. The assessments are done with 50% HOTS level questions. The curriculum of different programmes is

	developed to impart wholesome knowledge. The true sense of OBE is captured by having an industry immersion programme, open electives, offering incomplete credit-based industry and NCC courses, and a few other features. The academic programmes incorporate a multidisciplinary approach in designing the curriculum and give the students the advantage of learning from different domains of their choice.
6. Distance education/online education:	The institution has introduced the following Advanced Diploma / Certificate Programmes in different domains for candidates who aspire to gain the required skills to climb up their careers. The Programmes are also offered to persons working in industries. • Artificial Intelligence and Machine Learning • Business Management • Cyber Security • Electric Mobility and Smart Systems • Land Surveying • Smart Manufacturing • Wearable Technology • Drone Technology • Data Analytics • Sports Medicine • Yoga The following activities are adapted to actively engage the students in the online platform: 1.The ICT tools such as edpuzzle.com, wordwall.net, mentee.com are used to increase the inclusivity in the learning process 2. Breakout rooms in Microsoft teams are used for discussions 3. Quizziz.com is used for giving quizzes in all the classes 4. Other topics are discussed to make the students interactive and interested 5. Chatbox is used for question answering 6.Instant online search is given as activity for removing the diversions and distractions 7.To emulate physical classroom situation, the video of the teacher taking the class switched on.Small videos are included and embed at least 2 gaming based quizzesare embedded in the classroom teaching. 8. To improve the online teaching-learning process and quality of faculty, webinar series, workshop or training sessions are organized regularly. 9. Workshop sessions on Teaching and Learning with ICT tools, Andragogy of Online Education, Swotting of Digital tools on Effective Online Teaching are conducted to introduce educational tools, research tools, assessment tools and tools to handle practical sessions like Edmodo, Google Classroom, Microsoft team, google meet, Blackboard, quizziz, hot potatoes, whiteboard, End Note, Mendeley, virtual lab etc. 10. To teach courses dealing with problems the following is adopted: interactive pads/boards are used; problems are

	worked out on white boards and streamed as video, problems are worked out on paper with webcam focusing on it. 11.For objective exams, the HireMee platform has been used to conduct remote proctored exams 12.The platforms such as Microsoft Teams have also been tried to conduct exams through video proctoring. 13.Many experiments of practical courses of different disciplines are conducted with the help of virtual laboratory, a facility available in NIT Suratkal funded by MHRD. 14. For CSE and IT related courses, we have platforms such as Hackerrank, through which the exercises are posted. The progress is monitored and the completion is ensured. 15. For the remaining exercises of different practical courses, the teachers take the video of how to operate the equipment and how to take readings. Along with those videos, the concept and working of the experiments are taught. 16.The assessments are done through two modes: a.objective test which tests the understanding of the concept of the experiments and a viva voce to test the understanding of the working principle of the experiments b.virtual laboratory – to take readings virtually and the students arrive at the result or through virtual programming environment for programming related courses. Apart from advanced diploma programmes, the college offers continuing education programmes on CISCO certification. Based on the need of the stakeholders, the college is offering programmes that benefit the students.

Institutional Initiatives for Electoral Literacy

1. Whether Electoral Literacy Club (ELC) has been set up in the College?	Yes, Sona College of Technology constituted Electoral Literacy Club (ELC).
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?	Sona College of Technology constituted Electoral Literacy Club (ELC) with the involvement of student volunteers and staff coordinators. Dr.S.R.R.Senthilkumar, Principal, Sona College of Technology acts as Chair person for the ELC Club and This club is functional and consists of 10 active Student Executive Committee members, Campus Ambassador, Mentor and a Nodal Officer. Chair Person - Dr.S.R.R.Senthilkumar, Principal ELC Coordinator - Dr.P.Iyyanar, NSS Programme Offcier

	Co-cordinator - Mr.A.Naveenkumar, AP/IT File-in charge - Mr.R.Vaidhyanathan Campus ambassador - Mr.V. Obuli, Final year Mech and Mr.A.Pradeep, Final Year Mech 10 active student executive committee members Dharnidhar, Final Year ECE Arul P, Final Year ECE Praveeen Raj T, Final Year ECE Areddula Naveen Kumar, Final Year CSE Munaganuri Chakraharsha, Final Year CSE Dhanishkumar V, Final Year EEE Aravindhan G, Final Year EEE Sabari R, Final Year EEE Sri Subhashini M D, Final Year IT Devika V, Final Year ECE
3. What innovative programmes and initiatives undertaken by the ELCs? These may include voluntary contribution by the students in electoral processes-participation in voter registration of students and communities where they come from, assisting district election administration in conduct of poll, voter awareness campaigns, promotion of ethical voting, enhancing participation of the under privileged sections of society especially transgender, commercial sex workers, disabled persons, senior citizens, etc.	The ELC of Sona College of Technology regularly coordinates voter awareness campaigns to spread awareness about voting in young minds to strengthen our democracy. Also, our ELC, celebrates Voters Day every year with the objective of increasing the number of eligible voter by improving the new voter enrolment. Along with these activities, with the help of our college NSS & NCC units, the ELC creates electoral awareness events in the adopted villages.
4. Any socially relevant projects/initiatives taken by College in electoral related issues especially research projects, surveys, awareness drives, creating content, publications highlighting their contribution to advancing democratic values and participation in electoral processes, etc.	The ELC of Sona College of Technology along with NSS and NCC units, conducted awareness drives like rallies for the creation of awareness on voting to the common public. It aims to avoid cash for voting; maintain confidentiality of voting, understand that voting is a fundamental right for a citizen in adopted villages.
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.	ELC constantly creates awareness events and different types of competitions for students, especially for the I Year B. E/B. Tech students, those who are considered as new voters.

Extended Profile

1 Students

1.1

Number of students on rolls year wise during last five years

2022-23	2021-22	2020-21	2019-20	2018-19
5138	4805	4507	4575	4549

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

1.2

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

2022-23	2021-22	2020-21	2019-20	2018-19
1420	1291	1294	1311	1379

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

2 Teachers

2.1

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

2022-23	2021-22	2020-21	2019-20	2018-19
271	276	272	283	290

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

2.2

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

Response: 365

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

3 Institution

3.1

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

2022-23	2021-22	2020-21	2019-20	2018-19
3155.55	2814.02	2606.17	3024.51	2228.84

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

Other Upload Files	
1	View Document

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curriculum Design and Development

1.1.1

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

Response:

The Institute has a systematic process for creating, revising, and implementing curricula in all the departments. The Institute’s primary objective is to become a great reputed organization, in the fields of Engineering, Technology, and Management studies, by offering a full range of programmes of global standard to foster research and to transform the students into globally competent personalities. The primary objective of the undergraduate and postgraduate programme is to produce globally competent graduates who can work across borders with a comprehensive education that meets the exact requirements of society and industry.

The college introduced the Choice-Based Credit System (CBCS) in 2015. It was updated to Outcome Based Education (OBE) in 2019 to represent the graduate attributes of the Learning Outcomes-based Curriculum in compliance with the College's Vision and Mission. All the departments frame the courses and the curriculum in accordance with the Programme Educational Objectives, Program Specific Outcomes, Programme Outcomes, and Course Outcomes, which are intertwined with the institution's and department's vision and mission.

The following aspects that are considered while designing the curriculum are:

- Suggestions by stakeholders such as parents, industry experts, and alumni’s
- Syllabus and latest technologies from various reputed Indian and International organizations
- Model curriculum prescribed by AICTE,
- The Programme Outcomes and Program Specific Outcomes of professional bodies.

A framework of the curriculum is developed by the departments for their programmes. This system provides flexibility in designing curriculum and assigning credits based on the course content and hours of teaching. The curriculum has been carefully designed to address the current technologies and opportunities at the regional and global levels, as well as the fundamentals. There are several courses that provide solutions based on their science and engineering knowledge that enables students to analyse local and regional needs. The project component embedded in the curriculum gives leverage to the students to engage in developmental activities related to small-scale industries. Students can participate in different hackathons organized by various organizations and provide technical solutions for societal needs using their technical knowledge. The department offers Indust-oriented one or two credited courses as part of their regular curriculum. The IOCC and the Department Consultative Committee identify the course to cater to the needs of the industry and approve those credit courses for the students to take up during their

third or fourth year of study.

To address national and global developmental needs, the departments introduce courses like the Internet of Things, Machine Learning, Data Science, Artificial Intelligence, Machine Learning, Human-Computer Interaction, Mobile and Full Stack development, Cyber Security and Blockchain Technology, Robotics, 3D Printing, Nano Technology, Quantum Computing, etc. In addition to this, courses like Renewable Energy, Environment, and Climate Science create awareness among students to protect our global and heritage structure.

File Description	Document
Upload Additional information	View Document

1.1.2

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

Response:

Sona College of Technology has a systematic process for creating, revising, and implementing curricula in all Engineering, Technology, and Management studies. The Institute's primary objective is to become a reputed organisation by offering a full range of programmes in Engineering, Technology, and Management studies with global standards to foster research and transform the students into globally competent personalities. The curriculum is designed by getting suggestions from stakeholders such as parents, industry experts, and alumni, referring to the syllabus and latest technologies from various reputed Indian and International organisations, The structure of the curriculum and the modifications that are made fall within the curriculum prescribed by AICTE.

The Curriculum structure of the undergraduate program includes.

- Humanities and Social Sciences including Management (HS) courses include Technical English, Employability skills, Professional Ethics and Human Values, and Communication skills.
- Basic Sciences (BS) include Mathematics, Physics, and Chemistry
- Engineering Sciences (ES), include Materials, Workshop, Drawing, Basics of Electrical/ Electronics / Mechanical / Computer Engineering, Instrumentation
- Professional Subjects-Core (PC), relevant to the chosen specialisation/branch
- Professional Electives (PE), courses include elective courses offered by the department, dealing with various aspects of application or new development or both related to the chosen branch of study.
- Open Electives (OE), courses include the courses offered across all disciplines. Any student is permitted to register for these courses.
- Employability Enhancement Courses (EEC) include Project Work and/or Internship, Technical Seminars, Soft skills and Aptitude, Professional Practices, Case Studies, Online courses, Industry oriented courses, and Industrial /Practical Training

- Mandatory Courses (MC) include Environment and Climate Science, the Constitution of India, the Essence of Indian Traditional Knowledge, etc.

The curriculum structure of the postgraduate programme includes Professional Core Courses, Professional Electives, Open elective courses, and Employability Enhancement Courses (EEC)

Employability skills consist of different facets like Fundamental Skills such as quantitative aptitude, reasoning ability, etc, and technical skills i.e., domain-specific expertise. Communication Skills are also counted highly because they are the ultimate source of your interaction in the professional environment. In addition to this, Soft Skills or People Skills play a significant role in the holistic enhancement of employability skills. This includes presentation skills, team-building skills, self-management, etc. Sona offers exclusive employability enhancement courses in their curriculum such as, internship, online courses, and Industry-Oriented Courses.

Students with high skill development gain success not only to emerge as successful individuals, but also to build a healthy and intellectual society. They possess qualities such as problem-solving ability,critical thinking,agility and adaptability,working well as part of a team, and time and People Management.Sona offers exclusive skill enhancement courses in their curricullam such as basic aptitude,softskills and aptitude and communication skill laboratory.

Entrepreneurship skills build competencies in learners and increase their capabilities for putting knowledge into action and developing enterprises. Sona offers exclusive skill enhancement courses in their curriculum such as Research Methodology and IPR, Quality Control and Quality Assurance in Construction, English for Research Paper Writing, and Project Work

File Description	Document
Provide Link for Additional information	View Document

1.2 Academic Flexibility

1.2.1

Percentage of new courses introduced out of the total number of courses across all programmes offered during the last five years

Response: 29.29

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

Response: 524

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

Response: 1789

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

1.3 Curriculum Enrichment

1.3.1

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

Response:

The Curriculum of all the programmes of Sona College of Technology integrates the cross-cutting issues related to Professional Ethics, Gender, Environment, and sustainability. The curriculum of the **Professional Ethics and Human Values** course helps students develop a strong sense of responsibility and integrity in their professional lives. They learn about ethical principles, moral reasoning, and decision-making frameworks that guide their actions in the workplace. course Principle of Management provides insight into workplace ethics besides imparting knowledge about corporate governance. Addressing gender issues in the curriculum can help students understand the intersectionality of environmental and social justice.

Mandatory courses such as **Constitution of India** are included in the curriculum to teach the students about the rich Indian culture and constitution. The course on the **Essence of Indian Traditional Knowledge** gives students a comprehensive understanding of Indian culture. The course on Indian traditional knowledge has lessons related to Ayurveda and Yoga. Ayurvedic information helps us understand the human body and its functions, uses natural remedies to treat illnesses, and permits us to design and develop medical equipment and treatments. Yoga is a traditional Indian practice that combines asanas, breathing techniques, and meditation to promote physical, mental, and spiritual well-being. **Stress Management** through yoga courses addresses the issues related to human values and sensitizes the students to global health care.

Environmental and Climate Science, and Environmental Safety courses describe the need for the conservation of natural resources like air, water, forests, and food. The impact of environmental and climate changes on human health is significant and is an essential consideration for engineering students. As Engineers, there is a need to develop innovative solutions, such as developing air purifiers, water filtration systems, and other devices to reduce exposure to harmful pollutants.

Students are made aware of the need for gender equity and get inspired to strive for it from a multicultural standpoint. The college runs a separate cell called as Women Empowerment Committee which arranges for several programmes to create awareness about personal hygiene, health, etc.,

At present, 30+ clubs are functioning for the students by the students. Students can register in any of these clubs/chapters depending on their interests. Students are encouraged to participate in and coordinate activities conducted by various clubs. Students can contribute to society more meaningfully by organising programmes such as Blood Donation Camp, Eye check-ups, Medical check-ups, Voter awareness programme, Road Safety Campaigns, and creating computer literacy among villagers. Visiting orphanages, as part of their extra-curricular activity, makes the students respect human values and understand their moral and social responsibilities.

The Sona NSS unit has been very proactive in conducting different extension activities not only on college premises but also in the adopted villages. Every year, the NSS unit undertakes various activities in the nearby villages during the special camps. The college makes efforts to integrate ethical and human values through extra-curricular activities. The NSS units and Tremors Club promote environmental protection through tree plantation and other sustainable development programmes.

File Description	Document
Upload Additional information	View Document

1.3.2

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

Response: 94

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

1.3.3

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

Response: 100

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

Response: 28

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

Response: 28

File Description	Document
Sample Internship completion letter provided by host institutions	View Document
Sample Evaluated project report/field work report submitted by the students	View Document
Provide the relevant information in institutional website as part of public disclosure	View Document
Program and course contents having element of field projects / research projects / internships as approved by BOS	View Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

1.4 Feedback System

1.4.1

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

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

File Description	Document
Feedback analysis report submitted to appropriate bodies	View Document
At least 4 filled-in feedback form from different stake holders like Students, Teachers, Employers, Alumni etc.	View Document
Action taken report on the feedback analysis	View Document
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: 82.74

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
1515	1375	1088	1264	1197

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

2022-23	2021-22	2020-21	2019-20	2018-19
1608	1506	1566	1548	1554

File Description	Document
Provide the relevant information in institutional website as part of public disclosure	View Document
Institutional data in the prescribed format (data template)	View Document
Final admission list as published by the HEI and endorsed by the competent authority	View Document
Document relating to sanction of intake as approved by competent authority	View Document
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: 91.56

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

2022-23	2021-22	2020-21	2019-20	2018-19
1043	988	920	978	988

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
1109	1039	1081	1069	1072

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

2.2 Catering to Student Diversity

2.2.1

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

Response:

Education needs to be imparted as per the learning capability of the students. Every student is unique,

with their own strengths and weaknesses, learning styles and paces of acquiring the knowledge. Sona College of Technology (SCT) has a dynamic mechanism for assessing the learning levels of students. In SCT, the students are categorized as A, B, C levels. The students who fall in A level are categorized as advanced learners with high self-motivation, B level are termed as average learners, and C level are categorized as slow learners who need special attention in their coping capability.

Identifying advanced learners can help them in offering opportunities for more challenging experiences and ensuring that they are not held back by one-size-fits-all curriculum. Similarly, recognizing average learners, allows the teachers to tailor the instructions and eventually they are made to become advanced learners. Slow learners can be given additional support addressing their specific needs and help them to catch up with their peers.

Every teacher is trained when recruited in the latest pedagogical techniques. Sessions on Learning styles, presentation styles, and Outcome analysis are arranged. Faculty members are assigned as Faculty Advisors (FA) for 15 to 20 students to take care of the holistic development of students. The FAs serve as a student mentor for the duration of his / her study at the college. Each student must meet the respective FA for discussion atleast once in a month.

Different practices are followed until the end of their programme to dynamically identify in which category a student falls. Student learning levels are identified based on the performance of past academic results, bridge courses, soft skill assessments, and periodic reviews. Different activities are recommended and followed for different types of learners.

Special Programs for Advanced Learners (A category)

Learning based on Projects, motivating them to participate in National / International level competitions, encouraging to study advanced courses in Online platform like NPTEL, develop their extra-curricular activities by participating in student clubs, allowing them to take up Fast track learning in academic curriculum, providing Competitive examinations coaching, offering research experience, and Recognition them through awards.

Special Programs for Average Learners (B category)

In addition to similar programs for advanced learners they are offered special attention by faculty advisors to overcome the difficulties, recommend to participate in inter-collegiate competitions, and provide training to improve their scores in academics.

Special Programs for Slow Learners (C category)

The programs for slow learners aim to improve their academic performance, overcome their personal problems and channel their focus towards career improvement. The identified slow learners are attached to the peer teachers. The peer teachers coach them during the given schedule as per the guidance and directions given by the respective course teachers. After and before every assessment examination, remedial classes for each course are conducted. Study materials and question banks are given to them apart from prescribing regular text books.

File Description	Document
Provide link for additional information	View Document

2.2.2

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

Response: 18.96

File Description	Document
List showing the number of students in each of the programs for the latest completed academic year across all semesters	View Document
Certified list of full time teachers along with the departmental affiliation in the latest completed academic year.	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.3 Teaching- Learning Process

2.3.1

Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experience and teachers use ICT- enabled tools including online resources for effective teaching and learning process

Response:

The college follows various student centric methods for an effective implementation of the teaching learning process. In the teaching and learning process, the lectures delivered by the faculty are supported by a set of teaching aids and teaching methods. Different methods are being adopted time-to-time to improve the competencies of the students.

Teaching Aids: Power point presentation, Video Film, Models, Charts, Animation

Teaching Methods: Lecture, Group Discussion, Seminar, Quiz, Team Teaching, Demonstration, Drill and Practice, Industrial Visit, Games, Role Play, and Projects

Online Learning: NPTEL course with credit transfer.

Invited Lectures: For each course, apart from the regular lecture, the faculty should interact with industry experts to deliver the lecture to the students based on the industry standards.

Industry offered courses: Industry-oriented courses may be one, two or three credit courses depending upon the theory and practical content of these courses. Industry-oriented courses may be taught just like regular courses through periodic, pre-scheduled lectures and hands-on training.

Integrated Courses: Lab integrated theory courses and theory integrated lab courses are included in the curriculum to enhance the students' application-oriented knowledge. Through this methodology, students can solve or create solutions to real time problems and their thinking skills can also be improved.

The following methodologies are followed to ensure the provision of experiential learning: Student seminars, role play, project exhibitions, bazaar arrangement for business management students, short term inplant training in industries and internships.

Participative learning is a learning paradigm that initiates the active engagement of students in the learning process. Students are involved in different activities to learn and gain skills both academically and in extracurriculars. The activities are Assignments, Quiz, guest lectures, workshops, group discussion, field visits, industrial visits, and learning through special labs.

Problem solving skills are necessary for students. It prepares them to handle real-life problems. It is the ability to critically analyse a problem, map out all its elements and then prepare a workable solution. The industry looks for students who are good problem solvers. In almost all courses, problem solving skills are embedded. This includes participation in special projects, national/international level project competitions, design contests, etc.

ICT enabled campus

ICT tools are in great use by both the students and teachers. Sona has been developing and using the digital platform for teaching since 2005. Our campus has been enabled with digital technologies for education. Training of the teachers in ICT is conducted in the college to update their ICT skills and enable them to use the latest technology, thereby enhancing their competence and skill in handling of the ICT tools. We have been using Black board as learning management system (LMS). The platform is being used for content management and assessments.

The lecture sessions posted in online, so students can view their missed classes and home and view for better understanding. Course plans, Assignments, Quizzes and course materials like PPTs, videos, documents are published in Blackboard software for all the courses so that all the students can access the course content.

File Description	Document
Provide Link for Additional Information	View Document

2.3.2

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

Response:

The mentoring system in an organization will foster personal and professional growth, create a congenial learning environment, and bring positive changes. The purpose of the mentoring system is to facilitate growth of individuals, enable the sharing of knowledge, skills and experience, and cultivate meaningful relationships between mentors and mentees. This system will enhance the culture of the organization.

Objectives

- To help understand the challenges and opportunities in the academic system.
- To help understand the requirements that need to satisfied by the students both in terms of academics and overall personality
- To counsel students to take advantage of the experiences of the mentors and other teachers.
- To help and facilitate the fast and average learners to participate in various co-curricular and extra-curricular activities.
- To motivate the slow learners and help them to cope up with the academics
- To act as personal friend to students to face troubles in their personal life.
- To shape the mentees both personally and professionally.
- To show directions for their future studies or career.

Allotment

- Every teacher is a mentor.
- Every teacher has 15 to 20 mentees assigned by the head of the department.
- First year students have mentors from faculties such as humanities and languages, sciences and mathematics.
- From second year onwards, teachers from the departments are assigned as mentors.
- They continue to be mentors for the next 3 years till they graduate from the college.
- A period is allocated in the timetable every week for the meeting between mentor and mentees.
- During the meeting, the discussion with the mentees is recorded.

Roles and Responsibilities

Mentor

1. Introduce and discuss the concept of mentor-mentee system with the assigned mentees.
2. Give an understanding of the curriculum, the departmental requirements and that of the college as a whole.
3. Continuously monitor, counsel, guide and motivate the students in all academic matters.
4. Monitor the attendance, academic performance and behavioural aspects of the students.
5. Interact with the mentees to find out the cause for the low performance/indifferent behaviour.
6. Contact parents/guardians to inform the progress of their ward, whenever required.
7. Guide mentees regarding the importance of training programs, internships, industry visits, students' committees at the institute, club activities, seminar, workshops, conferences, examination norms, general structure of the scheme, MOOC courses etc.
8. Providing motivation to the mentees in their career development/professional guidance.
9. Maintain a brief but clear record of all discussions with students.
10. Motivate the students to follow ethics, good practices and universal human values.

Mentee

1. Attend the meetings regularly as informed during the schedule by the mentor.
2. Provide the right information regarding the academic and non-academic activities.
3. Keep informed regarding their individual activities and performance
4. Have confidence in Mentor and seek his/her guidance whenever required.
5. Be transparent on the activities.
6. Get the feedback form the mentor on your performance.
7. Seek advice on any matters related to professional or personal.

File Description	Document
List of Active mentors	View Document
Provide Link for Additional Information	View Document

2.3.3

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

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

Response:

Academic Schedule

The academic schedule for each semester is prepared by the Member Secretary, Academic Council in discussion with Dean – Academics and Controller of Examinations. Principal will approve the prepared Academic schedule and it will be circulated to all faculty and students. Pre-planned dates for commencement of the classes, Continuous Internal Examination, last working day, Practical exam, semester end examinations and tentative date for reopening for next semester will be given in the schedule.

Teaching Plan

Faculty will update the Faculty Record Book with the following details: Course syllabus, Course delivery plan, Course outcomes and their mapping with Program Outcomes, Topics beyond the syllabus, learning resources planned, Course coordinator meeting etc. The faculty record book will be approved by the Head of the Department concerned. Course delivery plan has been prepared for the semester and forwarded to the HoD concerned for approval. It is also uploaded to the blackboard software. Details of the research centres, training centres and activities at the college and department level are prepared by research heads, training heads and heads of the departments respectively. The list of holidays is also prepared and forwarded to the principal. Approval from the principal is received and published in the college website. Teachers and students are also given a copy of the academic schedule.

Academic Calendar

The academic calendar includes the details of the following:

- Vision, mission and quality policy of the college
- Recent milestones achieved
- Academic schedule
- Research and training centres
- Instructional facilities and amenity centres
- Women empowerment and security
- Anti-ragging committee information
- Grievance redressal cell
- Student counselling and availability of student counselors
- NCC and NSS activities
- working hours, rules and regulations and dress codes for the students
- Department-wise technical activities
- College level club activities
- College level functions

The Management Information System (MIS) team shall plan activities such as

Update the course list of all departments in a semester, Mapping of courses with respective faculty members in a semester, Update the start and end date of a semester along with total hours for each course, holidays etc. Update the database for regular attendance entry by faculty members for every semester, till the last working day of the semester.

The COE shall plan different activities such as

- Release exam dates for three Continuous Internal Tests (CIE)
- Release duration with dates to complete the answer script evaluation
- Collect the consolidated Continuous Internal Evaluation (CIE) marks from all departments, test cycle wise.
- Plan the review and Coordinate with departments to complete all CIE components entry in MIS.
- Release the exam dates for semester end practical examinations and conduct of the same.
- Release the exam dates and conduct Semester End examinations (SEE).
- Release duration with dates to complete the answer script evaluation

File Description	Document
Provide Link for Additional Information	View Document

2.4 Teacher Profile and Quality

2.4.1

Average percentage of full time teachers appointed against the number of sanctioned posts year

wise during the last five years

Response: 100

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
271	276	272	283	290

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

2.4.2

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

Response: 44.93

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

Response: 164

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

2.4.3

Average teaching experience of full time teachers (Data to be provided only for the latest completed academic year, in number of years)

Response: 13.96

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

Response: 3784

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

2.4.4

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

Response: 52.76

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

Response: 153

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

2.5 Evaluation Process and Reforms

2.5.1

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

Response: 2.2

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

2022-23	2021-22	2020-21	2019-20	2018-19
3	1	3	2	2

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

2.5.2

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

Response: 0.72

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

2022-23	2021-22	2020-21	2019-20	2018-19
46	25	11	35	50

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

2022-23	2021-22	2020-21	2019-20	2018-19
4985	4781	4482	4566	4533

File Description	Document
List of students who have applied for re-valuation/re-totaling program wise certified by the Controller of Examinations year-wise for the assessment period.	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

2.5.3

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

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

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

Response:

The Office of the Controller of Examinations shall be responsible for assessing continuous learning process of the students with best quality of standards in examination process and ensuring confidentiality. It is the duty of the office of the Controller of Examinations to arrange, prepare, schedule, conduct, publish and maintain records of CIE and Semester End Examinations of the students of all UG, PG and Ph.D programmes.

Continuous Internal Assessment

Assessment of continuous internal tests is carried out through online platforms M/s Blackboard, M/s HireMee, Open Book Test, Online tutoring and presentations etc. These tests are not only for assessment of the students but also transformation of traditional education system to technologically updated assessment processes by introducing various examination reforms.

Examination Reforms

Industry Oriented Courses

- Students are allowed to undergo industrial training for a period of 4/8/12 weeks approved by the Department Consultative Committee
- Credits for these courses are 1/2/3.
- Assessments of the students are to be done by the industrial experts.
- Students can add up those credits and forgo any one professional elective, if the total credits are above 3.

Open Electives

- In CBCS (Choice Based Credit System) Open electives are mandatory in the semesters 5, 6 & 7 where students can opt courses from multi-disciplinary areas.

Online Courses

- Students can use online platforms like NPTEL, SWAYAM, COURSERA, etc., for learning courses offered by eminent institutions like IITs, IIM, MITs, foreign Universities, etc.,
- They may choose 4/8/12 week courses with credits 1/2/3.
- After successful completion of such courses they can forgo any one professional elective in the regular programmes.

Mandatory NPTEL courses

- NPTEL courses are made mandatory for students.
- Students could not complete his/her degree, if he/she has not done at least one course in the entire study period.
- Students are also encouraged to study a maximum of 4 NPTEL courses additionally.
- These credits can be used to forgo one additional professional elective in his/her entire study period.
- All additional credits are given in their grade sheets.

Internship

- Internship based industry immersed programmes in CBCS curriculum.
- Students can undergo long internships (two semesters) in 4th & 5th semesters combined
- Depending on the number of hours the internship scheduled, his/ her credits can be transferred in place of a professional elective course of 3 credits or mini project (max of 2 credits)

Open Book Test (Library Test)

- To develop creative thinking, application of knowledge and to nurture their skills, **Open book tests have** been conducted in the library.
- Students can refer to their books, notebooks, library books and the Internet.
- Also, they can use other accepted material to answer questions.

Student Publication

- In the final semester of all UG and PG programmes, students are encouraged to do project work along with publications in conferences, journals and patents.
- Based on their publications, marks will be awarded.

File Description	Document
Provide links as Additional Information	View Document

2.6 Student Performance and Learning Outcomes

2.6.1

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

Response:

Framing Institutional Vision, Mission and Quality policy

The process of establishing and evaluating vision, mission and quality policy involves regular consultation and examination practices engaging four core constituents: Faculty, Students, Alumni, and Employer. Current Vision and Mission statements are framed by during the strategic planning committee meeting where faculty members including the Principal and HOD were present, Management review meeting and meetings with Alumni and Industry members. A detailed vision statement was written taking the inputs from all the stakeholders and a shortened form of vision statement was formulated. To achieve the vision of the institution, the mission statements were formulated. Both the vision and mission statements are tabulated in different meetings for feedback.

Framing departmental vision, mission, PEOs, POs, PSOs

The department frames PEO, PO, PSO, and CO in accordance with NBA requirements. Outcomes are disseminated to stakeholders through various online/offline platforms. The outcomes are evaluated according to structured procedure, which helps identify the gap and develop innovative/creative teaching approaches.

All courses (theory and practical) of the program have well-defined five course outcomes, one for each unit. The course outcomes (CO) are formulated during the syllabi design. A team of faculty members handling the course formulate the COs and the same is deliberated and approved by the Board of Studies.

These COs are mapped appropriately with the POs as low, medium and high mapping.

Dissemination

Dissemination of Outcomes to all the stakeholders of the program is done through Website, Student orientation programs, Faculty Induction workshop, Parents' meeting, Alumni meeting, Curriculum / Syllabus books, Display boards at different locations and Student lab manual

Course Outcome Assessment

The course outcome attainments are calculated for each courses to evaluate the effectiveness of teaching and learning in the course.

Direct assessment tools include the performance of Continuous Internal Evaluation Test, Assessing objective type questions, Model Exam, Project Review, Semester end Exam, Assignment, Seminar, Practical Semester Examination, Quizzes and Real time problem solving.

The indirect assessment is done through the Course End Survey A questionnaire is prepared that reflects the achievement of program outcomes through course outcomes. The data is collected at the end of each semester from the students and is analyzed for attainment of course and program outcomes.

Program Outcome Assessment

At the end of the programme, the POs/PSOs are computed using the CO computation. PO attainment is calculated based on Direct Attainment and Indirect Attainment. The PO and PSO attainment are computed using the weighted average of all the COs that are mapped to that PO and PSO. Indirect assessments are based on Exit survey, Employer Survey, Skill level statistics and Placement/Higher Education records. After the computation of POs and PSOs, a thorough analysis on the attainment levels is done by the programme assessment committee of the department. This analysis includes finding the weak areas towards the attainment of POs and PSOs and a detailed plan of action taken to improve the attainment levels.

File Description	Document
Upload POs and COs for all courses (exemplars from Glossary)	View Document
Provide links as Additional Information	View Document

2.6.2

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

Response: 96.13

2.6.2.1 **Total number of final year students who passed the examination conducted by Institution**

during the latest completed academic year:

Response: 1365

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

2.7 Student Satisfaction Survey

2.7.1

Online student satisfaction survey regarding teaching learning process

Response: 3.86

Criterion 3 - Research, Innovations and Extension

3.1 Promotion of Research and Facilities

3.1.1

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

Response:

The commitment of Sona College of Technology to nurture advanced research in the emerging areas of science, engineering and technology has resulted in the establishment of 36 R&D centres.The centres focus primarily on applied research,product development,learning-resource development,and industrial training.The R&D centers have completed many funded research projects of ISRO, NIOT, DRDO, DST, AICTE, UGC, CPRI etc. one of the R&D centers, Sona Speed Sona has developed BLDC motors for ISRO space applications and high power converters for NIOT deep sea mining applications. The steeper motor designed and developed by Sona Speed has played a significant role in ISRO's Chandrayan-3 moon mission. The centre has also supplied motors for the ensuing Gaganyans mission. The college has received nearly 10 Crores of funding support from DST in the categories of FIST, WTP, Agri-BPO, Women Scientist Schemes, Young Scientist Schemes, Nanomission, TDT, etc.

Sona is recognised as a SIRO (Scientific and Industrial Research Organization) by the DSIR, New Delhi, which brings more advantages for joint industrial consultancy and R&D works. Sona is also encouraging both the faculty and the students through SEED money scheme in which funding support is provided by the management to carry out research works and to realize innovative ideas. Sona also provides fellowship to full-time PhD research scholars through SONA DOCTORAL FELLOWSHIP scheme. The college incentivises faculty members who publish research papers in SCI and Scopus-indexed journals.

Faculty members are encouraged to provide consultancy services to Industries, Service Sector, Govt. Departments and other National and International agencies in the niche areas of expertise available in the institute. The institute provides remuneration to the institution and individual/team at the ratio of 60:40, based on the revenue generated after the completion of every consultancy work. Sona College of Technology has generated total funding of Rs 5.99 Crores in the last five years through various industrial consultancy works offered by our faculty members. During this period, our institute has generated Rs.70 Lakhs through various testing services offered by the R&D centres to a variety of industries.

Faculty members are also encouraged to apply for research funding available from various Government funding organisations, which will certainly help in establishing the laboratory infrastructure. 3 % of the total received fund is given as an incentive to the faculty members involved in the sponsored research projects. Sona College of Technology has received a total funding of Rs 5.31 Crores in the last five years (2018-2023) through various sponsored research projects received by our faculty members.

Sona College has undertaken the key task of creation, protection and commercialisation of technical know-how, through which internal revenue generation is possible by the commercialisation of patents. Faculty members are encouraged to file patents and the total expenses towards filing the patents will be taken care of by the institute. Sona has filed more than 100 a total of 90 patents in the last five years (2018-2023) and 10 patents have been granted. For the granted patent, faculty will be given an incentive

of Rs.20,000

File Description	Document
Upload any additional information	View Document
Provide links as Additional Information	View Document

3.1.2

The institution provides seed money to its teachers for research

Response: 74.17

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

2022-23	2021-22	2020-21	2019-20	2018-19
27.74	7.76	0	38.67	0

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

3.1.3

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

Response: 7.67

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

Response: 28

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

3.2 Resource Mobilization for Research

3.2.1

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

Response: 613.82

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

3.2.2

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

Response: 0.14

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

Response: 51

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

3.2.3

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

Response: 25.09

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

Response: 68

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

3.3 Innovation Ecosystem

3.3.1

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

Response:

Entrepreneurship Development Cell Supported by AICTE

The aim of the Entrepreneurship Development Cell (EDC) at Sona is to develop and strengthen entrepreneurial qualities in the budding professionals who are interested in starting their own ventures.

IEDP-Salem Hub at Sona

The Entrepreneurship Development and Innovation Institute (EDII-TN) has recognised Sona as its hub for disseminating the Innovative Entrepreneurship Development programme (IEDP) to the spoke institutions in Salem region. There are 62 Spoke institutions connected with this hub. Every year, IEDP-Salem hub organises the entrepreneurial programmes and workshops conducted for the students and faculties of all the Spoke colleges.

Sona Business Incubation Centre:

Business Incubator is recognised by MSME to facilitate incubation of new enterprises with innovative technologies by admitting them and providing them with physical, technical, and networking supports and services. SBIC supports the holistic development of incubate in all dimensions for the start-up from kick-start of ideas to scaling up into the start-ups.

Institutions Innovation Council (Sona IIC) – MHRD- Innovation Cell (MIC):

MIC has envisioned encouraging the creation of IICs in selected higher educational institutions. A network of these IICs has been established to promote innovation in the institution through multitudinous modes leading to an innovation promotion eco-system in the campuses.

Power On Me:

A series of Idea pitching workshops is being conducted in the name of **POWER ON ME** on Full moon day regularly to motivate the young student innovators from Sona College of Technology and from other institutions also.

Sona Incubation Foundation (SIF):

- SIF is established as a Section -8 Company i.e., Not for Profit company. SIF aims to develop the start-ups in Salem Region. It has SIF signed an MoU with IIT Madras Incubation Cell – IITM Research Park.
- **A start-up company has been incubated in both SIF and IITM-IC.**

- **20 start-up companies are registered as incubates (presently, virtual mode)**
- A special FAB lab is being setup with the guidance of IITM-IC in Sona for the benefit of Start-ups.

Build Club- Building the projects with students of different streams.

IITM-Research Park came up with a student-based activity named ‘Build Club’. The club aims to create a culture of building things together and is fully managed by students. The broader goal of this club is to create excitement about entrepreneurship as a career option for the students. Hence, Sona, as a partner

institute with IITM-RP, established the Build Club and the students are trained in IITM-RP in the month of March 2022 and June 2022.

Women's Entrepreneurship Development Cell:

In view of giving importance to women empowerment, the WEDC was established in the year 2022, and the Cell is managed by girls. Awareness programmes on entrepreneurship as a career are conducted regularly. Two women faculty members are nominated as coordinators. Women students actively participate in all the activities of WEDC.

Rural Entrepreneurship Development Cell:

REDC was established under Mahatma Gandhi National Council for Rural Education. In coordination with Sona Centre for Social Responsibility Initiatives, different development programmes are conducted for rural women for their self-employment.

File Description	Document
Upload any additional information	View Document

3.4 Research Publications and Awards

3.4.1

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

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

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

Response: A. All of the above

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

3.4.2

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

Response: 1.31

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

Response: 89

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

3.4.3

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

Response: 2.7

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

Response: 986

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

3.4.4

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

Response: 1

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

Response: 365

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

3.4.5

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

Response: 3.62

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

3.4.6

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

Response: 27.5

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

3.5 Consultancy

3.5.1

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

Response: 600.47

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

2022-23	2021-22	2020-21	2019-20	2018-19
55.65	63.48	58.46	173.96	248.92

File Description	Document
Letter from the beneficiary of the consultancy along with details of the consultancy fee	View Document
Institutional data in the prescribed format (data template)	View Document
CA certified copy of statement of accounts as attested by head of the institution	View Document
Audited statements of accounts indicating the revenue generated through corporate training/consultancy.	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

3.6 Extension Activities

3.6.1

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

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

Response:

National Service Scheme

The National Service Scheme (NSS) of the institute is keen on extending outreach activities with social responsibility.

The NSS unit played a crucial role during the pandemic period in March 2020. In collaboration with the Government of Tamil Nadu, the NSS team arranged three special covid 19 vaccination camps for the staff and students, assisting in immunization. This year, Sona NSS has supported the state government conducting the single-phase Tamil Nadu state assembly elections,organising the Freedom Run programme for Fit India, the special camp for inclusion in the voter list, the World Eyesight Day awareness rally in association with Lotus Eye Hospital, Salem, and the mega private job fair. Totally 29 events were held in 2021-2022. And at the “NSS A Seven-Day Special, camp was also conducted at (Nalikalpatti and Kandhakottam).

National Cadet Corps

The students of Sona College of Technology, undergo NCC training under the guidance of
Lt. Dr. R. Shakthivel and Lt. K. Anithaa. Institutional training activities include drills, weapon drills,

blood donation, tree plantation, social awareness rally, camp training were given basic military training like weapon handling, firing, obstacle clearing, and mountaineering were given to students. On the completion of the training, students are given NCC certificates (B & C) provided by the Ministry of Defence.

Women Empowerment Committee

Sona College of Technology has always focuses on activities promoting women's empowerment. The Women Empowerment Committee was formed in the year 1997 and registered under the Societies Act. The committee organizes guest lectures and seminars that enhance the latent talents of female students. The Women Safety Team comprising eighty students and faculty members, is a part of the Women Empowerment Committee.

Sona Youth Red Cross

Sona Youth Red Cross (YRC), a part of the Indian Red Cross Society, has 120 student volunteers. Inaugurated in August 2003, YRC organizes voluntary community outreach activities. The Institution and students have received awards for the extension services.

Sona CSRI

The journey of Sona Groups towards comprehensive community development through vocational education began in the 1990s. Its efforts tp improve the livehood of the community led to the establishment of the Centre for Social Responsibility Initiatives (CSRI) in 2009. CSRI has trained 256 youth from the local community during 2020-21 and helped the needy.

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

3.6.2

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

Response: 382

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

2022-23	2021-22	2020-21	2019-20	2018-19
93	73	53	75	88

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

3.7 Collaboration

3.7.1

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

Response: 130

File Description	Document
Summary of the functional MoUs/linkage/collaboration indicating start date, end date, nature of collaboration etc	View Document
List of year wise activities and exchange should be provided	View Document
List and Copies of documents indicating the functional MoUs/linkage/collaborations activity-wise and year-wise	View Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1

The Institution has adequate infrastructure and other facilities for

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

Response:

Infrastructure

Sona College of Technology is located in Salem that provides a holistic learning experience for students. The campus is spread over 139294 sq.m of land, which is utilized for academic activities such as classrooms, laboratories, library etc. and hostel (both boys and girls). The residual area was also utilized to support cultural amenities, sports, canteens etc. There are 110 classrooms and 10 seminar/conference halls with all classrooms and seminar halls equipped with projector and Wi-Fi/LAN facilities. In addition, 3 auditoriums such as Valliappa Auditorium, PG Auditorium and Open Auditorium are available to conduct various extra-cultural activities for students. There are 62 laboratories,15 research centres and 6 industry-supported laboratories diversified in various departments to be utilized by UG, PG, PhD students and faculties. The institution has also adequate physical infrastructure facilities such as faculty cabins, common rooms for boys and girls, a health centre, libraries at each department and a main library etc. The institute also provides facilities to support cultural and sports activities, and mental wellness through indoor and outdoor games, yoga centres, gyms, auditoriums, clubs etc. The requirements for the updation of infrastructure will be discussed at the department/centre and will be forwarded to consolidation and the institution will optimize the required infrastructure.

Computer & Networking

There are 2075 computers of which 1628 computers are exclusively used by the students, covering a 3:1 student-computer ratio for the current academic year (2022-23) with 1 GbPS internet bandwidth that is functional. The internet bandwidth of 1 Gbps was mutually shared by Bharath Airtel and Jio with 500 Mbps connectivity each.

Learning Management system

Sona College of Technology adopts strategies for interactive teaching-learning processes between faculties and students in the classrooms, laboratories, field visits etc. The interaction between faculties and students apart from conventional classroom teaching through a learning management system (LMS) was also ensured through BLACKBOARD and V Class software. BLACKBOARD, a single robust, secure and integrated open-source software system promotes online interaction between faculties and

students wherein the faculties will be supported to upload their lecture materials, conduct online quizzes, provision for assignments etc. The V class is a learning management system implemented to capture classroom lectures, wherein the students can learn/review the content at their convenience.

Extra-curriculars

In addition to academics, SONA supports additional talents through various clubs such as the SONARIA music club, science club, SONA Readers Club etc. and student chapters such as ISTE, IEI, IGBC etc. The institution conducts the cultural fest “KRIVIYAS”, an annual day, and sports day through such available infrastructure facilities. The institution also has a well-built yoga centre with a calm, serene and unique atmosphere for the students to practice yoga. A separate block is in use to practice yoga which occupies nearly 100 students per session. Daily yoga sessions are conducted separately for boys and girls inside the premises for staff monthly twice. “STRESS MANAGEMENT” sessions are taken including teaching and non-teaching staff.

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

4.1.2

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

Response: 35.37

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
584.15	1096.13	951.20	1439.54	820.99

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

4.2 Library as a Learning Resource

4.2.1

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

Response:

General

The library at Sona College of Technology was automated in 2005 and updated with AUTOLIB in 2017, an open-source Integrated Library Management System (ILMS). The software is user-friendly and tailor-made to the demands of the users. The library has an excellent collection of books, journals and non-book materials in science, engineering, technology, humanities, social sciences and management. It maintains several collections of reference books, bound volumes of journals, technical reports, theses, video cassettes, compact discs and microforms. The library uses Autolib OPAC (Online Public Access Catalogue), which enables users to search for books online. The well-established infrastructure of the institution provides an excellent ambience for maintaining the library's resources. The library has an excellent collection of books, journals and non-book material in science, engineering, technology, humanities, social sciences and management.

Database

The library has subscribed to 33663 book titles, 85451 book volumes, 178 book banks, 148 proceedings and 801 standards covering 34495 titles and 86578 volumes. The library holds e-resources covering 3675 NPTEL video lectures, 1568 e-journals such as IEEE ASP, Science Direct, EBSCO, SAGE, Taylor & Francis etc. and 11498 e-books published by Elsevier and EBSCO. The institution has also subscribed to plagiarism software like TURNITIN, and Grammarly with 15 log-in credentials and nearly 30000 access to the Prowess IQ CMIE database. The library also has institutional membership of Shodhsindhu, enabling researchers to access the thesis. The institution also has also access to various databases (e-journals, e-books, e-resources etc.) within and outside the institution for the faculties and students. The library at the institution conducts meetings periodically to update the database as per the suggestion from

the committee members (coordinators at the department level). The library at the institution is used regularly by the students and faculty members for their academic and research activities.

Library usage

The library usage by the faculty members and students is calculated every year based on the entry in the e-gate system. The footfall data includes the IN and OUT details of the students and faculties to the library through the e-gate system. For e-access, barcodes are provided on the ID cards of all the students and faculties with a unique ID. In the recent academic year (2021-22), around 37423 users have visited the library to access the resources with an average of 40-50 faculties per day, 100-400 students per day and 100-150 users accessing e-resources every day.

RFID

Sona Central Library has embraced cutting-edge technology by implementing Radio Frequency Identification (RFID) systems. This state-of-the-art technology enhances the library experience for users by automating book check-in and check-out processes, reducing queues, and improving overall efficiency. RFID tags on library materials allow for seamless tracking and inventory management, ensuring accurate cataloguing and easy retrieval. The implementation of RFID at Sona Central Library signifies a commitment to staying at the forefront of library services, offering a more streamlined and user-friendly experience for visitors while optimizing resource management for the institution.

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

4.2.2

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

Response: 1.27

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

2022-23	2021-22	2020-21	2019-20	2018-19
40.64	34.97	34.28	34.85	30.27

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

4.3 IT Infrastructure

4.3.1

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

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

Response:

General

Sona College of Technology has a well-defined IT policy and state-of-the-art IT infrastructure with high-speed internet connections. The IT policy comprises networking, maintenance of hardware and peripherals, expansion of network, updation of existing IT infrastructure etc. Also, the policy focuses on guidelines for hardware installation, software installation and licensing, network and usage of email accounts etc. The faculties are provided with individual systems and a separate login to access to high-speed internet facility. Their laptops are also given access to a Wi-Fi facility. All the computers in the institution are enabled with high-speed internet connectivity for the benefit of students. The ratio of computers and students is 1:3. Also, SONA MIS (Management Information System) was built to store the data of the stakeholders.

Computing facilities

Before 2018-19, the institution had 1478 computers, 18 servers, 81 laptops, 96 LCD projectors, 59 Wi-Fi access points, 32 switches and 40 printers. In the academic year 2018-19, 72 computers, 3 servers, 6 laptops, 47 LCD projectors, 7 switches and 2 printers were added and in 2019- 20, 50 computers, 1 server, 1 laptop, 5 projectors, 2 switches, 2 UPS units and 5 printers were added. In the academic year 2021-22, 4 laptops, 19 LCD projectors, 30 Wi-Fi access points, 46 switches, 2 UPS units and 5 printers were added and in 2022-23, 100 computers, 2 servers, 4 laptops, 2 LCD projectors, 30 Wi-Fi access points, 9 switches, 2 UPS units and 3 printers were purchased. Presently, there are 2075 computers, 24

servers, 84 laptops, 169 LCD projectors, 119 Wi-Fi access points, 120 switches, 46 UPS units and 57 printers. The internet bandwidth was around 100 Mbps before the academic year 2018- 19 and it was upgraded to 205 Mbps in the academic year 2019-20 and further increased to 1 Gbps in the academic year 2022-23. The institution also has 1688 mail accounts, 1 cloud core router, 6 smart boards and 2 core switches and updated its firewall from Cyberoam 500iNG in the academic year 2019-20 to Sophos 450XG in the academic year 2021-22.

Policy statement

The IT policy comprises all IT infrastructure, network and security in the institution. This was framed in 2015 and updated in 2023. The details are given below:

- Inclusion of MIS complaint system
- Upgradation of network speed from 205 Mbps to 1 Gbps
- Increase in the Wi-Fi access points from 59 No’s to 119 No’s
- Establishment of DHP server, router and core switch
- Upgradation of network switch from unmanageable to semi-manageable

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

4.3.2

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

Response: 3.16

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

Response: 1628

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

4.3.3

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

Response:

General

Sona College of Technology has a well-established media centre named “Sonaversity”. Sonaversity is a leading multi-media research and development centre established in the year 2000 in association with Sona College of Technology. It began with the aim of resources for creating Computer Based Training (CBT) enriched with animation to explain complex concepts. Sonaversity has evolved into a full-fledged media centre producing high-quality multimedia resources and digital services for students pursuing UG/PG degrees in engineering, management, and computer applications.

Support to teaching-learning

It supports teaching-learning by producing high-quality audio-visuals, graphics and texts. It also supports a wide range of internal and external communication, including social-media communication. Being located centrally on the campus for easy accessibility, the centre plays a crucial role in significantly enhancing the teaching-learning experience. Equipped with the newest hardware and software and incorporating the latest digital technologies, the facility is manned by an experienced, team of graphic designers, videographers, photographers and editors. Sonaversity, the multimedia centre is available for developing video lectures which include an LCS server, media centre, audio and video centre and mixing equipment. The institution has a well-equipped lecture capturing system (LCS) (V-Class) to record audio and video of the class lectures. Each faculty and student is given individual login credentials to access the lectures. The V-Class platform (Lecture capturing system) records the lectures which helps the students if they absent themselves and recall the lectures in case of any doubts. It also allows open discussion of students with faculties in the V-Class platform. Sonaversity supports teaching-learning in editing the recorded video lectures and maintaining the database of lectures to support the students in efficient learning even outside the class.

Digital support

Sonaversity involves in designing brochures, pamplates etc. for various events conducted at the institute and also involves in capturing pictures of various events at the institute. Sonaversity has curated an immense variety of images and audio/video content that has been produced over the last 15 years. These have been stored in a digital content repository for instant access. Students and various academic departments can retrieve when they require crucial information, including seminars, workshops, and guest lectures.

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

4.4 Maintenance of Campus Infrastructure

4.4.1

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

Response: 43.07

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

2022-23	2021-22	2020-21	2019-20	2018-19
1732.34	1207.82	1159.47	1030.86	825.45

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

4.4.2

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

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

Response:

Digitalization in maintenance

The facilities at Sona College of Technology support the educational, research and administrative activities of the institution and provide an enabling ecosystem for all the stakeholders to achieve the

mission of the institution. Sona College of Technology has well-established systems and procedures for maintaining and utilizing physical and academic support facilities. Sona College of Technology has a system in place to maintain its facilities. Grievances can be raised through an e-ticketing system named “Management Information System-MIS” and "Track My Sona".If any faculty wants to report a problem with facilities, they can log onto "MIS/Track My Sona" using their college staff code and secured password. Depending on how urgent the issue is, all the complaints will be resolved within 24 hours to a week.

Nature of maintenance activities

- Various maintenance activities such as estate, electricity, networking etc. are performed at the institution for maintaining and utilizing physical and academic support facilities.
- Estate maintenance includes horticulture, waste Management, security and fire fighting. General maintenance includes lifts, canteen, health centre, hostel and physical education.
- Electrical maintenance includes basic electrical work, genset maintenance, solar power generation lightning arresters and earthing.
- Civil maintenance includes buildings, roads & walkways, whitewashing and painting and small masonry works.
- Carpentry maintenance includes mechanical, carpentry and anti-termite and bug treatment.
- Plumbing maintenance includes rainwater harvesting, sewage treatment plants, plumbing works, and water supply operations.
- The computer maintenance department (CMD) has a qualified and trained technical support staff for any minor repair work in the computer by the staff and works are registered and the same is solved by servers, operating, antivirus and firewall services.
- Powerhouse facilities are available to manage the power supply for the department and administrative blocks. Adequate generator facilities are available besides UPS support to the academic infrastructures.
- The library is automated by the AUTOLIB 2017 software. They are well maintained in racks as per the standard protocols governing the library management system. Every year books are properly scrutinised and stock verified by faculty in a circular manner.
- The sports complex is maintained by a physical director with a supporting team of instructors. The Medical Centre is also functioning in the sports complex with proper maintenance. Well-equipped fitness centre and swimming pool are properly operating with a pool filtration re-circulation system.

Audit

- Each academic department will perform the physical verification of its resources, with the help of a team of faculty and staff members.
- A list of missing items, and obsolete items to be prepared in the specified formats. The report will be submitted to the AO Campus within the prescribed time.
- The team of experts from various sections will perform an annual audit and submit its report to the AO Campus for further necessary action.

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

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1

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

Response: 77.63

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

2022-23	2021-22	2020-21	2019-20	2018-19
4359	4021	3403	3454	3064

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

5.1.2

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

Response:

Sona College of Technology, committed to academic excellence and holistic development, has a significant role on gearing up initiatives and mechanisms to ensure the well-being and academic progression of its students.

Career counseling delivered by the faculty members of the Department of Training stands as a pivotal force in steering students towards prosperous career trajectories within the college. Soft skills are essential for personal and professional success, and Sona College of Technology has recognized the importance of incorporating soft skill training into their curriculum. The soft skills class offer training focusing on soft skills such as communication, teamwork and problem solving skills. The training is provided using interactive methods, role-playing, and case studies to make the training practical and engaging.

The integration of personality and aptitude tests into the counseling process is a frequent and valuable practice. These assessments serve as diagnostic tools, revealing students' natural strengths, preferences, and areas of aptitude. The results play a pivotal role in pinpointing suitable engineering specializations and career paths that resonate with the unique capabilities of each student. The faculty of SCT provides detailed insights into various job prospects, and this wealth of information equips students to make informed decisions about their future career paths.

Workshops on resume building, letter writing, and interview preparation are conducted to ensure students can effectively communicate their skills and experiences to potential employers, thereby enhancing their prospects for job opportunities. Continuous follow-up with students allows for ongoing support, progress tracking, and addressing any concerns they may encounter.

The Sona Career Planning Center (SonaCPC) extends various services encompassing counseling and training for students pursuing higher studies and research careers. The institution conducts workshops on stress management, coping strategies, and career counseling to empower students to make informed decisions about their academic and professional paths.The career planning center, along with coordinators from each engineering department, supports preparation for competitive examinations such as GATE, UPSC/TNPSC, banking exams, GRE, TOEFL, and IELTS.

Recognizing the importance of essential skills for competitive exams beyond academic preparation the institution conducts skill development programs focusing on logical reasoning, critical thinking, communication skills, and problem-solving abilities. These programs aim to boost students' confidence in facing competitive exams.

The Global Opportunities workshops showcase a diverse range of study abroad programs offered by reputed universities and educational institutions worldwide. Information about academic courses, cultural experiences, and application procedures is made available to interested students.

The institution actively cultivates collaborations with a diverse array of industry partners, fostering relationships that open avenues for internship opportunities. These partnerships ensure that students gain exposure to real-world scenarios and industry best practices. Collaborating with leading companies, the institution organizes placement drives that provide a direct interface between students and potential employers. These drives facilitate on-campus recruitment, making the placement process more accessible and streamlined.

The institution explores employment opportunities overseas by collaborating with representatives from multinational corporations, global companies, and recruitment agencies who share insights into international job markets. The institution has successfully placed students in lucrative jobs in countries like Japan.

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

5.1.3

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

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

Response: A. All of the above

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

5.1.4

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

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

Response: A. All of the above

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

5.2 Student Progression

5.2.1

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

Response: 80.79

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

2022-23	2021-22	2020-21	2019-20	2018-19
1157	1060	1027	1087	1078

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

5.2.2

Percentage of students qualifying in state/ national/ international level examinations out of the

graduated students during the last five years

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

Response: 1.69

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

2022-23	2021-22	2020-21	2019-20	2018-19
43	13	29	20	8

File Description	Document
List of students qualified year wise with details of examination and links to Qualifying Certificates of the students taking the examination	View Document
Institutional data in the prescribed format (data template)	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.3 Student Participation and Activities

5.3.1

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

Response: 217

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

2022-23	2021-22	2020-21	2019-20	2018-19
85	24	20	47	41

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

5.3.2

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

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

Response:

The Student Council at Sona College of Technology serves as the representative body for the student community, fostering the overall well-being of students. This report provides an overview of the diverse activities and initiatives undertaken by the student council to enhance the learning experience at the institution. It is structured to include representatives from various branches of engineering, ensuring a diverse and inclusive representation. Elected through a democratic process, the council comprises enthusiastic and dedicated individuals who act as the voice of the student body.

The primary responsibility of the student council is to articulate the concerns and aspirations of students. This involves addressing matters related to academic policies, infrastructure, and facilities. The council functions as an effective communication channel, ensuring that the perspectives of students are not only heard but also factored into decision-making processes.

Board of Studies (BOS) Meeting:

The Board of Studies meeting is a crucial forum that includes active students' participation, primarily focusing on academic matters. Comprising faculty members and student representatives, the BOS meeting serves as a platform for discussing and shaping the curriculum, academic policies, and evaluation methods. Student representatives play a pivotal role in voicing the perspectives and concerns of their peers, ensuring that academic decisions align with the needs and expectations of the student community.

Internal Quality Assurance Cell (IQAC):

The Internal Quality Assurance Cell (IQAC) holds a distinct position within the student council, focusing on the overall quality enhancement of academic and administrative processes. Comprising faculty members, administrative staff, and student representatives, the IQAC meeting discusses strategies for continuous improvement in various aspects of the institution. Student representatives discuss on various

aspects like teaching methodology, learning resources and campus facilities. IQAC meetings are instrumental in fostering a culture of continuous improvement, ensuring that the institution maintains high standard education and overall development.

Class Committee Meeting:

The Class Committee meeting is an integral component of the student council, functioning at the grassroots level. Comprising elected class representatives and students from various backgrounds, these meetings provide a space for discussing class-specific issues. Students speak voicing on their concerns on academics, infrastructure etc. Class Committee meetings play a vital role in building a sense of unity and camaraderie within each class. These sessions also serve as a platform for students to collaborate on academic initiatives, share feedback and contribute to a positive learning environment.

Hostel Committee:

The Hostel Committee meeting always addresses the unique needs and challenges of students residing at college hostels. Comprising student representatives from different hostels and hostel wardens, these meetings delve into matters such as living conditions, safety and recreational activities within the hostels. The Hostel Committee plays a pivotal role in ensuring the well-being of students residing on campus.

Other committees:

The Students Council members is actively participating in various other committees such as Peer Tutor, Sports Committee, Anti-Ragging Committee, Internal Complaints Committee and Grievance & Redressal Committee to uplift the quality of education and other amenities for the students.

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

5.3.3

The institution conducts / organizes following activities:

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

Response: A. All four of the above

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

5.4 Alumni Engagement

5.4.1

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

Response: 59.6

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

2022-23	2021-22	2020-21	2019-20	2018-19
16.05	11.98	10.37	10.41	10.79

File Description	Document
List of alumnus/alumni with the amount contributed year-wise	View Document
Annual audited statements of accounts of the HEI highlighting the Alumni contribution duly certified by the Chartered Accountant/Finance Officer	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.4.2

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

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

Response:

The Sona Alumni Association stands as a testament to the enduring legacy of our alma mater, contributing significantly to the growth and development of our beloved institution. The Alumni association officially registered under section 10 of Tamil Nadu Act 27 of 1975, with registration number 66/2018, Book Number 4. Our association boasts a vibrant community of over 22,561 members. The Sona Alumni Association takes pride in the achievements of our alumni who have soared to commanding heights in various fields across the globe. Among them are outstanding individuals who have ascended to prominent positions both nationally and internationally, exemplifying the transformative power of education.

Notable alumni such as Ms. Dharmalashri (2012 B.Tech Fashion Technology) - an IAS officer, Mr. Senthil Nadha Aravinthan .M (2001 B. E., Mechanical Engineering) - CEO OF Datacorp Traffic Private Limited, and Mr. Bharath Ramamurthy (Class of 2006 - B. E., Mechanical Engineering) - Vice President, Customer Experience Cloud at SAP Americas Inc, showcase the diverse achievements of our graduates across various fields, Mahesh Subramaniya (Batch 2005 - B. E., Computer Engineering) Engineering Leader, Apple lnc.

Our alumni's influence extends to pivotal roles in government and research, with luminaries like Mr. Arunraj V (Class of 2009 B. E., Mechanical Engineering) - Thermal Power plant Engineer IL&FS Tamilnadu Power Company Limited and Mr. Thamilarasan S (Class of 2014 - B. E., Electronics and Communication Engineering) – Forester, Tamilnadu Government - Forest Department.

The spectrum of accomplishments includes Mr. Prakash J (Class of 2008 - B. E., Mechanical Engineering) – Scientist at Indian Space Research Organisation (ISRO) India, and Mr. Mohan. J (Class of 2001 B. E., Mechanical Engineering) - Project Manager at Indian Space Research Organisation (ISRO) India.

Our association leverages the Almashines platform to foster connections among alumni, providing a space for the exchange of information and experiences. A strategic Memorandum of Understanding with Almashines underscores our commitment to maintaining a robust Alumni portal tailored for Sona College of Technology.

Periodic alumni meet serves as a nexus for networking, fortifying social bonds, and sharing expertise with current students. Beyond reunions, our alumni actively contribute to the academic landscape, serving as resource persons for guest lectures and Placement training sessions, ensuring the continuous enhancement of educational quality based on valuable alumni feedback.

Financial contributions totalling Rs. 59.6 Lacs over the last five years underscore our alumni's commitment to the institution's development. This support has facilitated significant advancements:

1. Procurement of new computer desktops tables
2. Procurement of new Furniture’s and Library Bookcase.
3. Organization of career guidance programs for students.

In addition to financial contributions, our alumni have actively participated in various capacities:

1. As resource persons in guest lectures and seminar.
2. Serving as advisory board members
3. BoS members in various departments

The Sona Alumni Association, through its dedicated members, continues to be a driving force in shaping the future of Sona College of Technology. With unwavering commitment and a shared vision, we look forward to further milestones in fostering excellence and nurturing the leaders of tomorrow.

File Description	Document
Upload any additional information	View Document
Provide the 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:

In Sona, both statutory and non-statutory committees play crucial roles in ensuring effective governance and the overall development of the institution. Statutory committees are imperative as they operate within the legal framework, ensuring compliance with regulatory bodies and the government mandates related to accreditation, curriculum, and academic standards. These committees, such as the Governing Body (GB), and the Academic Council are essential for maintaining the institution's integrity, credibility, and recognition.

The GB is the apex body of Sona College, and significant institutional decisions are taken at its bi-annual meetings. Perspective plans of the college for the years ahead are discussed at the GB meetings, achievements at the college and department levels are reviewed and discussed, and decisions are taken on developing a broad roadmap for the institution to pursue.

The members of the management, nominees of the governmental bodies, and industry experts offer advice for the overall development of the college. They also review and approve decisions taken at meetings of other major college committees.

The GB functions on the basis of a set of terms of reference which lays out briefly its overall purpose, constitution, roles and responsibilities of the members, duration of their membership, quorum, etc.

On the other hand, non-statutory committees provide the flexibility needed to address various dynamic challenges and opportunities in engineering education. These committees, such as the Management Review Committee (Sona- QMS), Grievance Redressal Committee, and Internal Compliance Committee, offer recommendations for Academic matters, infrastructure improvements, and strategies for fostering an environment conducive to holistic student development.

To achieve the mission and vision of our Sona, We have the following systems implemented in our Institution. We introduced Innovative Teaching Methods like Lecture Capturing System (LCS), Blackboard and Moodle Platform to achieve excellence in the Teaching Learning Processes. To improve the competence of the faculty and staff, they are encouraged to attend Conferences, Seminars, Faculty Development programs and NPTEL Courses.. etc with 100 percent financial support from the management. The Placement & Training Cell functions with the primary aim of placing students in top-notch companies even before they have completed their courses. The Placement & Training cell goes all out to train the students to meet the high industry expectations.

Sona has devoted itself to providing extensive opportunities for staff and students to pursue research and development activities.
Sona College's commitment to advanced research in the areas of science, engineering and technology has nurtured 30-plus centres of excellence. Every department is encouraged to have at least one such centre. Most departments have established two/three centres each.

The centers focus primarily on applied research, product development, learning-resources development and industrial training. All these centres have in place advanced equipment and current technology. There is a strong tendency towards inter-discipline research, especially in the areas of nano-technology, robotics, automation, etc that generates new ideas and promotes the development of innovative products and processes. Both the faculty and students alike contribute to the research, development and innovation at Sona.

File Description	Document
Upload any additional information	View Document

6.2 Strategy Development and Deployment

6.2.1

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

Response:

Perspective Plan / Strategic Plan:

Sona College of Technology has strategic planning with ten thrust areas. The overall coordinator is the process champion who drives the development and monitoring. Each thrust area is entrusted with a thrust area manager to implement the objectives and monitor the progress of achievements of the success indicators. The strategic planning document is framed based on the brainstorming workshop where the faculty members, Heads, Deans, and Principal were part of it. Those thrust areas are as follows: Academic excellence, Student admissions, Physical infrastructure development and maintenance, industry partnership, staff development, Research and Development, student development, outreach activities, International collaborations and quality assurance and enhancement. Strategic planning is done in every department, which aligns with the college's strategic planning.

Functioning of Institutional Bodies:

Statutory and Non-statutory Committees: In Sona, both statutory and non-statutory committees play crucial roles in ensuring effective governance and the overall development of the institution. Statutory committees are imperative as they operate within the legal framework, ensuring compliance with regulatory bodies and government mandates related to accreditation, curriculum, and academic standards. These committees, such as the Governing Body (GB), and the Academic Council are essential for

maintaining the institution's integrity, credibility, and recognition.

On the other hand, non-statutory committees provide the flexibility needed to address various dynamic challenges and opportunities in engineering education. These committees, such as the Management Review Committee (Sona- QMS), Grievance Redressal Committee, and Internal Complaints Committee, offer recommendations for curriculum updates, infrastructure improvements, and strategies for fostering an environment conducive to holistic student development.

Administrative Setup:

The administration of the Institution consists of the Chairman, Vice Chairmen, Principal, Deans, and the Heads of the Department (HOD) concerned, who take decisions in all academic matters. The Principal serves as the overseer of academic affairs and administrative operations within the institution. Responsible for liaising with the management, the Principal proposes strategies to secure essential resources for realizing the institution's objectives, vision, and mission.

HoDs operate with a degree of autonomy in executing academic responsibilities. They possess the authority to make decisions concerning academic affairs and distribute tasks among faculty members in a decentralized manner. Their roles encompass a wide array of activities such as teaching, nurturing student growth, fostering faculty development, and facilitating staff enhancement initiatives. This decentralized structure allows for efficient management of academic functions within the institution while promoting the involvement and autonomy of departmental leaders.

Appointment Procedures:

Faculty and staff members are selected in accordance with the requirements and in adherence to the AICTE/UGC guidelines to uphold an improved Student Faculty Ratio. Announcements for faculty and staff positions are disseminated through the institution's website, social media platforms, and prominent newspapers. The received resumes undergo meticulous scrutiny by the Heads of Departments (HoDs), who then invite suitable candidates for interviews conducted by the Selection Committee. This committee comprises the Principal, HoD, and subject matter experts. Upon completion of the interviews, the Selection Committee's recommendations are presented to the Governing Council for their approval and subsequent appointment.

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

6.2.2

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

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

Response: A. All of the above

File Description	Document
Screen shots of user interfaces of each module reflecting the name of the HEI	View Document
Institutional expenditure statements for the budget heads of e-governance implementation ERP Document	View Document
Annual e-governance report approved by the Governing Council/ Board of Management/ Syndicate Policy document on e-governance	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

6.3 Faculty Empowerment Strategies

6.3.1

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

Response:

Performance Appraisal:

Sona College of Technology has a well-made Performance Appraisal Policy and a SOP to implement the Policy effectively, with a view to ensuring the quality of teaching-learning as well as the staff welfare. All efforts are made to keep the teachers updated with industry trends and emerging technologies. The Institution has set up its own Research Centres and all the necessary infrastructure support systems are put in place to facilitate research, acquisition of new skills and participation in innovation.

There is a 90-degree appraisal system that is mandated by the institution with a view to ensuring quality in teaching-learning and implementing the necessary interventional mechanisms. As per the SOP, the self-appraisal is followed by the HOD and later the same is submitted to the Principal for further appraisal and the submission of the analysis report to the BoG/BoM. The Recommendations are taken care of by the BoG for promotions, increments and incentives. In case of appraisals that fall below the average, suitable interventions are made by subjecting such staff to mentoring, training, Performance Improvement Plan and Career Counselling.

Welfare Measures:

Employee welfare is a fundamental aspect of our institution's ethos. We are committed to ensuring the well-being of our employees beyond their professional roles. We prioritize their physical and mental health, offering comprehensive healthcare plans, wellness programs and counseling services. We foster a healthy work-life balance through flexible schedules and remote work options. Financial stability is promoted with competitive compensation and retirement benefits. We invest in continuous learning and skill development, empowering our employees for career growth. Our inclusive culture promotes a sense of belonging. Employee welfare isn't just a policy; it's a core value that underlines our commitment to our team's holistic prosperity.

Teaching:

- Contribution to provident fund Contribution towards medical insurance
- Maternity leave
- Medical leave
- Advance to meet emergency expenditure
- Medical center
- Gratuity
- Personal accident insurance
- Registration fee, TA, and DA for attending conferences and workshops, etc.,

Non-Teaching:

- Uniforms for support staff
- Financial aid for the education of the ward of support staff
- Festival Bonus Contribution to ESI
- Fee concessions for children of administrative and support staff
- Medical center facility
- Gratuity Personal accident insurance
- Salary advance.
- Registration fee, TA, and DA for attending programs.

Avenues for career development/progression:

Sona College of Technology Provides ample support and opportunities to their staff members for their career development. Our Institution is one of the approved research centres by Anna University to carry out research activities. All the teaching faculties are motivated to do their Ph.D either full time or part time category and Post doctoral fellowship programmes. In such case, full-time sabbatical leave will be given with salary. Non-teaching staff members are encouraged to do their B.E or M.E part-time to develop their careers and the training programmes are conducted to improve communication and computer skills.

File Description	Document
Upload any additional information	View Document

6.3.2

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

Response: 79.96

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
248	215	174	269	207

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

6.3.3

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

Response: 86.42

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

2022-23	2021-22	2020-21	2019-20	2018-19
245	244	259	255	200

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

6.4 Financial Management and Resource Mobilization

6.4.1

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

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

Response:

The primary objective of the funds mobilization strategy is to ensure a steady flow of adequate funds for both maintaining and developing the institution, facilitating its growth and expansion. The budget formulation of the institution revolves around aspects such as teaching, research, and rural upliftment. The budget is supported by the most reliable estimates of funding derived from its primary revenue sources. Emphasis is placed on sustainability in the budget and expenditure planning. The allocation of funds is adjusted annually based on their optimal utilization to achieve the highest level of growth. To ensure responsible resource management, the institution conducts academic, research, administrative, and financial audits.

- Tuition Fees collection from students
- Grants from Government and Non-Government organizations.
- Fund generated from R&D, Continuing Education Courses, Consultancy works, and Lab testing for various government and non –government organization.

- The fee collected from students is being deposited into the bank and from which Interest is earned.
- Interest earned from Endowment deposit placed with banks.
- Also encouraging the faculties and staff for applying various grants and executing social activities covered under corporate social responsibilities as well.
- Fund generated through resources utilization like sports ground, auditorium, ..etc by external bodies.
- Revenue from the sponsored Skill Development and Training Programmes conducted for Salem Steel Plant/ Salem Refractories Ltd.

The Finance Committee ensures compliance with regulations related to income and expenditure account maintenance, with final approval from the Board of Management (BoM). To maintain long-term expense control, the institution adopts various systems like solar power generation, e-Governance in Academic and Administration, water recycling, and solid waste recycling.

The revenue sources include tuition fees, interest on the corpus fund, philanthropic support from industries and alumni, consultancy, non-government funds, and research grants. Additionally, service revenues come from housing and dining, as well as infrastructure rent for facilities such as the auditorium, swimming pool, and sports facilities utilized by nearby communities and government organizations. Central and State Government Competitive examinations like TNPSC, TANCET, GATE and NEET Examinations on rental basis.

Based on proper permission, Public/Private programs are allowed in SONA since it is situated in the heart of the city.

The core expenses consist of salaries and staff benefits, academic and administrative support, operation and maintenance of existing infrastructure, expenses towards new infrastructure and facilities, and student services including financial aid and scholarships.

SONA plans its utilization of financial resources through the Annual Budget. The Annual Budget is prepared based on the actual expenditure of the previous year and proposed academic and administrative development. This budget is ratified by the Finance Committee and approved by the Board of Management. The actual expenditure is made against the approved budget that is monitored by the process of internal and external audits. As far as the utilization of resource concerned, the institution has instituted various measures including internal control and internal audits.

File Description	Document
Upload any additional information	View Document

6.4.2

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

Response: 71.13

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

2022-23	2021-22	2020-21	2019-20	2018-19
0.40	2.0	5.66	35.83	27.24

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

6.4.3

Institution regularly conducts internal and external financial audits regularly

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

Response:

Sona College of Technology is a self-finance institution, where the funds are generated through the fees paid by the students. Deficit is managed by taking advance from the parent trust. Additional funding is obtained by faculty members through Research proposals. These funds are utilized for the research and laboratory development. The institute has a well-defined mechanism to monitor effective and efficient utilization of available financial resources for the development of the academic processes and infrastructure development. Institutional budget is prepared by Accounts department every year taking into consideration of recurring and non-recurring expenditures. Accordingly, all the administrative and academic heads are requested to submit the budget required for the subsequent financial year. Along with this all coordinators of different cells viz., R& D Cell, Exam Cell, Placement and Training Cell, NSS Cell, etc. are instructed to submit their budget to Account office. All the major financial transactions are analysed and verified under following departments:

• Research & Development

• Training & Placement

• Software & Internet charges

• Library Books / Journals

• Repair & maintenance

• Printing & stationary

• Equipment & Consumables

• Furniture & Fixtures

1. Institute adheres to Utilization of budget approved for academic expenses and administrative expenses by management.
2. After final approval of budget the purchasing process is initiated by purchase committee which includes all the head of departments and account officer, accordingly the quotations called and after the negotiations purchase order are placed.

Internal /Concurrent Audits

We have a separate Internal Audit Department with four staff members headed by a Semi qualified Professional and they are undertaking to verify the day to day Fund Flow of the institution and Physical verification of fixed assets and other facilities of the institution. They act as a bridge between the Accounts Department and Statutory Auditors.

The expenditure for staff salary is being audited every month. The expenditure incurred towards infrastructure maintenance and purchase of new equipment's, consumable items is being audited then and there. The expenditure incurred towards organizing the programs in the institute and the amounts spent towards staff development programs attended by the staffs outside of the institution are being audited.

The institution is regularly filing return of Income with Income Tax Authorities on or before the due date as per the provisions of the Income Tax Act.

External/Statutory Audits

In our Institution external audit is being carried out by M/s.G.Goudhaman & Co Charted accountant, Salem. Charted accountant with their team audit staff during the period from June to September every year. The external team audits the objects as referred by the internal audit. All the flow of funds of the institution is being audited by the external team and the audited statement is submitted to the management.

Mechanism of settling audit objection:

We have appointed a separate staff in the accounts department to follow up audited activities. If any objections are raised by the external auditing team it will be settled then and there.

File Description	Document
Upload any additional information	View Document

6.5 Internal Quality Assurance System

6.5.1

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

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

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

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

Response:

IQAC has taken several initiatives to ensure quality in teaching learning. Few practices institutionalized as a result of these initiatives are discussed.

Practice 1 - Open Elective Courses

As the institution is autonomous, the curriculum has two or three open electives where the students of one discipline can take courses of other disciplines. This is similar to earning minor specialization. For instance, students of Mechanical engineering can take courses offered in Information Technology department. This improves the multidisciplinary approach of the students. The process and guidelines for open elective courses is given below.

1. **Open Elective (OE)** includes the courses offered by one branch to the other branches. There will be a pool of open elective courses offered by different departments for the students to choose from. The number of open electives in a curriculum shall be between two and four, which can be offered during semesters 4 to 7. A minimum of two open electives shall be studied by a student during his/ her period of study.
2. In B.E/B.Tech Regulations 2019, almost all departments have two open elective courses in semesters 6 and 7 respectively.
3. Academic Council will consolidate all the open elective courses offered by all departments during the end of fifth semester. It is circulated to the fifth semester students for their information and to decide their choice. Similarly, during end of the semester 6, there will be the second open elective

registration for semester7.

4. A centralized open elective registration will be conducted online for all UG students on a particular day.
5. Based on the registration report, as the minimum registration counts allowed for each elective course is 20, the students in minimum count courses and also students who missed the first registration have to re-register for an open elective course 2 days after first centralized registration.
6. The final consolidated list of open elective courses registered by all UG students will be circulated to all faculty members and students of all departments for the course delivery.

Practice 2 - Open Book Examinations for CIE

In our Sona College of Technology, we introduced open book examinations in the Continuous Internal Evaluation (CIE) examinations to improve the critical thinking, problem-solving, and analytical skills of the students. It also promotes a deeper understanding of the subject matter, as students must navigate through the provided resources to locate and apply pertinent information. It is a unique approach to test the students, that allows students to access and use reference materials during the assessment. Unlike traditional closed-book exams, open book assessments evaluate a student's ability to synthesize and apply information rather than memorize it.

For this new initiative , we organized a workshop for our senior faculty members on " Setting the Question paper for Open Book Examination" by inviting an external experts. Further the trained senior faculty members from each department conducted training to their respective departments. The guidelines were coined through IQAC in association with Dean Academics and Controller of Examinations and it is approved by the Academic council members.

File Description	Document
Upload any additional information	View Document

6.5.2

The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms

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

Response:

Example -1 Continuous Internal Evaluation (CIE) Review Meeting

The Internal Quality Assurance Cell (IQAC) cell initiated the review of the Continuous Internal Evaluation(CIE) test performance meeting after the completion of every test cycle. A separate schedule was prepared by the Controller of Examinations (COE) in discussion with IQAC and it is circulated to all the departments. Various departments will consolidate the report on student's performance in the tests

and the class counsellors will present the report. The principal, COE and Dean Academics will give suggestions for students improvement.

It provides timely feedback, identifies areas of improvement and encourages students to improve their academic performances.

CIE places a strong emphasis on formative assessments that occur throughout the learning process. These assessments aim to monitor student progress, identify learning gaps and guide instructional decisions.

Constructive feedback is provided to the faculty members and students on a regular basis, highlighting their strengths and areas of improvement. It allows faculty members to identify the slow learners easily and provide targeted interventions. This also prevents learning gaps from widening and ensures academic success for all students.

Example 2: ISO Audit and Academic Audit

The primary objective of IQAC is to monitor, maintain and improve the quality of the institution consistently as per the standard ISO 9001:2015 standards through SONA QMS cell. Various quality enhancement initiatives and activities are carried out through SONA QMS.

Two internal quality audits are conducted each academic year. For internal audit the trained teachers will act as auditors. A detailed schedule will be prepared with the list of auditors and the auditee department. The first audit will commence in June followed by Management Review(MR) meeting in September and the second will commence in January followed by the MR meeting in March every year. During the Management Review meetings the results of internal quality audit, the report on the status of the attainment of college level quality objectives for the corresponding year, the feedback received from students, alumni and industries are discussed. The root cause and corrective actions taken are clarified.

Once in a year, there will be a surveillance audit by Bureau Veritas and after two such surveillance audits, a recertification audit will be conducted to extend the ISO certification of the organization. In all these external audits the audit results were presented in the closing meeting. The institution is recommended for the continuation of QMS certificate as per the standard ISO 9001:2015 and this ensures consistent quality. QMS awareness program is conducted for ISO core team members and new recruits each year.

The IQAC organises academic audits to ensure the compliance of methods and processes followed by all the faculty members. The academic activities that are recorded in the Faculty Record Book (FRB) are reviewed periodically by a senior faculty member appointed by the IQAC with the checklist and the reports are submitted to the IQAC.

File Description	Document
Upload any additional information	View Document

6.5.3

Institution has adopted the following for Quality assurance*:*

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

Response: A. Any 5 or more of the above

File Description	Document
Quality audit reports/certificate as applicable and valid for the assessment period	View Document
NIRF report, AAA report and details on follow up actions	View Document
List of Collaborative quality initiatives with other institution(s) along with brochures and geo-tagged photos with caption and date	View Document
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:

Gender Audit:
HEI has taken significant strides in advancing gender equity through its dedicated Gender Audit and proactive measures over the past five years. Championing equality and inclusivity, the institution has orchestrated a multifaceted approach encompassing policy reforms, educational initiatives, and a cultural shift within its academic landscape.

One of the pivotal cornerstones of this endeavor has been the Gender Audit, an assessment of existing policies, practices, and attitudes within the institution. This evaluation served as the compass for identifying areas needing improvement and formulating strategies for fostering gender parity.

The institution began by revisiting its policies, ensuring they were not only gender-sensitive but also inclusive. Amendments were made to recruitment policies, emphasizing equal opportunities for both genders and promoting diversity across faculties and administrative roles. Additionally, guidelines were established to prevent any form of discrimination or harassment, fostering a safer and more welcoming environment for all.

Co-Curricular Activities

To promote a culture of awareness and sensitivity, numerous educational campaigns and workshops were conducted. These initiatives aimed at sensitizing students and staff about gender-related issues, fostering empathy, and respect for diverse perspectives. Workshops on gender equality, unconscious bias, and inclusivity became regular fixtures, fostering an environment conducive to open dialogue and learning.

Moreover, the institution took proactive measures to bridge the gender gap in academia and technical fields. HEI introduced scholarship programs and mentorship initiatives targeting female students, encouraging their participation and success in traditionally male-dominated disciplines. These programs not only provided financial support but also served as platforms for networking and skill development.

A significant aspect of the institution's efforts was the establishment of support systems and resource centers. These dedicated spaces provided counseling, guidance, and support to individuals facing gender-based challenges, ensuring they had access to the necessary resources and assistance.

Facilities

HEI prioritizes women's security and hygiene by offering comprehensive facilities. Security measures encompass well-lit pathways, CCTV surveillance across campus, and dedicated security personnel ensuring a safe environment. Hygiene is paramount with clean restrooms, regular sanitation protocols, and hygiene awareness campaigns. The college provides emergency response systems, self-defense workshops, and counseling services to empower women.

Skill Development Programs

Furthermore, fostering a sense of empowerment among women became a priority. The institution organized leadership development programs and forums where successful women professionals shared their experiences and insights, inspiring and motivating students to aspire for leadership roles irrespective of gender.

The impact of these measures has been evident in the changing dynamics within the institution. There has been a noticeable increase in the enrollment of female students across various disciplines. Additionally, more women have assumed leadership roles within the faculty and administration, reflecting the institution's commitment to fostering a gender-balanced environment.

The institution continues to evolve and innovate, leveraging its resources and expertise to create a more inclusive and equitable academic ecosystem, where individuals thrive based on their abilities and not their gender. Through continuous evaluation, strategic initiatives, and a collective commitment, the institution stands as a beacon of progress in promoting gender equity within the educational sphere.

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

7.1.2

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

Response: A. Any 4 or more of the above

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

7.1.3

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

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

Response:

Sona College of Technology implements various techniques for effectively managing the degradable and non-degradable waste generated on campus with a population of 6700 including both students and staff members. To utilize the waste, the college is provided with composting units where organic waste such as food scraps, garden waste, and other biodegradable materials are being processed. Compost piles are being monitored regularly by a team of hostel workers to ensure they maintain the right temperature, moisture, and oxygen levels. The final compost product is used as a natural soil conditioner for the variety of plant species available within the campus. A biogas plant has been erected on campus to transform organic waste into biogas, which may be utilised as a sustainable energy source. The produced gas is utilised in the hostel kitchen for cooking and boiling purposes, lowering the hostel's reliance on LPG cylinders.

Also, proper waste segregation, which is necessary for successful waste management, is implemented on campus for various categories of waste such as degradable waste and non-degradable waste such as wood waste, steel scrap, paper waste, etc., Sona College of Technology has been provided with separate waste in various locations for collecting degradable waste such as green waste, food waste, landscape waste, etc., and non-degradable waste such as plastic bottles, packing covers, tetra packs, etc., thus encouraging students and staff to dispose of organic and inorganic waste separately. Paper waste from the college office and old answer sheets from the controller of examination are regularly disposed of to external agencies and bills are collected and recorded intact. In the Department of Civil Engineering, concrete is produced using various industrial waste and fly ash supporting the waste-to-wealth concept. Products such as bricks, concrete solid blocks, hollow blocks, paver blocks, interlocking blocks and ferrocement

panels are produced based on requirements. These products are developed using industrial wastes such as fly ash, GGBS, steel slag, granite powder, plastics, etc., All the products have either patent published or patent granted status.

Liquid waste generated by the College hostel is treated through Sewage Treatment Plants (STPs) with a handling capacity of around 200KL/day and the treated water is used for gardening purposes through sprinklers and vehicle washes. Biomedical waste is collected in colour-coded bins as per the Biomedical Waste Rule and disposed of safely. To promote the Reduce, Reuse, and Recycle policy for the management of electronic products such as unused computers, servers, projectors, and other electronic equipments on campus, measures such as regular maintenance, preventive maintenance, toner reuse, and other check-ups are carried out to ensure maximum utilisation. Records are kept at both the college and department levels to ensure that the procedure is followed.

Students and faculty members actively engaged in recycling practises through educational activities, fostering awareness and involvement. The college's dedication to sustainability goes beyond recycling bins, incorporating innovative technology and educational efforts to promote a waste reduction and resource conservation attitude among its dynamic population.

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

7.1.4

Water conservation facilities available in the Institution:

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

Response: A. Any 4 or more of the above

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

7.1.5

Green campus initiatives include

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

Response:

Sona College of Technology in Salem, India, has made tremendous efforts towards being an ecologically responsible college, through its Green Campus Initiatives. With a strong commitment to sustainability and environmental preservation, the institution has undertaken several steps to encourage eco-friendly practices and decrease its carbon impact. They are implemented in the following ways:

1. **Restricted entry of Automobiles** - One of the most significant decisions made by the college is the restriction of car admittance on campus. Faculty and staff have been given vehicle passes that allow them to operate two and four-wheelers on campus. They are encouraged to carpool to decrease automobile usage and pollution. This initiative seeks to reduce dangerous pollutant emissions and improve healthier air quality on campus. Special vehicle passes for outside vehicles to carry food during special occasions are also carried out to create a vehicle pollution-free zone within the campus.
2. **Use of Bicycle/Battery-powered vehicles** - To reduce carbon emissions, the college promotes the use of bicycles and battery-powered vehicles as an alternative means of transportation. By encouraging alternative modes of transportation, such as carpooling and public transportation, the college aims to reduce overall traffic congestion and promote sustainable commuting practices among its students and staff. Also, dedicated parking spaces for electric vehicles for staff in front of various blocks have been arranged on the campus, thus incentivizing the adoption of these eco-friendly modes of transportation as part of green campus measures. Additionally, the college organizes awareness campaigns and workshops to educate the campus community about the benefits of cycling and electric vehicles. To create a safe and pedestrian-friendly environment, the college has developed well-designed pathways that encourage walking and discourage the use of motorized vehicles within the campus. Meanwhile, pollution will be decreased by encouraging students and faculty members to live healthier lifestyles.
3. **Ban on use of Plastic** - Recognizing the detrimental impact of plastic on the environment, the

college encourages the use of reusable bags, stainless steel bottles, and steel containers and also provides easily accessible water refill stations across the campus to reduce plastic bottle usage within the campus.

4. **Pedestrian Friendly pathways** - Each road in the college premises has two lanes, with pavement on either side for the safe movement of Pedestrians. Pedestrian pathways smoothly link every block on campus, preventing any disruptions from passing vehicles and also providing obstacle-free movement for the teaching, and non-teaching staff and students.
5. **Landscaping with trees and plants** - These green spaces are thoughtfully constructed to accommodate a varied range of plant species, including native and drought-resistant plants, to save water resources. These activities not only lower the institution's carbon footprint but also inculcate in the campus community a feeling of environmental responsibility, establishing a culture of sustainability that goes beyond the college grounds. Thus, the trees create an ambience motivating the student community to excel in their academic performance.

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
Provide Links for any other relevant document to support the claim (if any)	View Document

7.1.6

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

The institutional environment and energy initiatives are confirmed through the following

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

Response: A. All of the above

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

7.1.7

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

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

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

Response:

Sona College of Technology stands as an exemplar in the realm of inclusive education, steadfast in its commitment to fostering an environment where every student, regardless of their physical abilities, feels empowered and included. This dedication is prominently showcased through the campus's meticulous design and thoughtful infrastructure, tailored to cater to the diverse needs of individuals with disabilities.

At the heart of this commitment lies the thoughtful integration of ramps and lifts across the campus landscape, weaving a seamless web of accessibility. Strategically positioned ramps serve as gateways, bridging gaps between buildings and pathways, ensuring effortless navigation for individuals with mobility challenges. These carefully placed access points alleviate barriers, enabling students and faculty with disabilities to move freely, fostering a sense of independence and inclusion within the college premises.

Moreover, the emphasis on providing Divyangjan-friendly washrooms reflects a deeper understanding of the specific needs of individuals with disabilities. These restroom facilities are not merely spaces but embodiments of comfort and accessibility. With widened entrances accommodating wheelchairs and well-placed grab bars offering stability, these washrooms epitomize the college's commitment to upholding international accessibility standards, ensuring the dignity and convenience of all individuals.

The campus's commitment extends beyond physical infrastructure to encompass a comprehensive signage system. Tactile paths, illuminating lights, and clear display boards serve as guiding beacons, aiding navigation for visually impaired individuals. These informative signposts not only offer directions but also serve as a testament to the college's dedication to inclusivity, enabling individuals to traverse the campus confidently, irrespective of their abilities.
Central to this inclusive ethos is the provision of assistive technology and specialized facilities. Sona College of Technology recognizes that access to education transcends physical spaces. By equipping the campus with assistive technology and tailored facilities, the college empowers Divyangjan to excel academically and actively engage in campus life, fostering an environment where every individual's potential can flourish.

Additionally, the college's commitment to accessible information dissemination is commendable. By offering multiple communication modes—email, messaging services, and other text-based platforms—the institution ensures that essential information reaches Divyangjan, transcending barriers that might impede their access to crucial resources.

In essence, Sona College of Technology's unwavering dedication to inclusivity sets a precedent for educational institutions worldwide. Through its thoughtful infrastructure, commitment to accessibility, and fostering an environment where diversity thrives, the college stands as a beacon of inclusion, where every individual is valued and empowered to achieve their full potential.

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

7.1.8

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

Response:

Our students and faculty hail from across the states and union territories of our vast country and even beyond from countries like Nepal and Sri Lanka. Their rich mosaic of cultural, linguistic and regional backgrounds form the cornerstone of Sona’s dedicated efforts towards promoting inclusion, promoting tolerance and harmony towards cultural, regional, linguistic, communal socio-economic and other

diversities within our campus.

As students step in to Sona's campus, they walk into an atmosphere that cultivates and appreciates diversity. Language clubs and various other students' clubs complement this experience by offering an opportunity for sharing and living these traditions and customs of different states and nations. These clubs teach the students about the diverse cultures that have been adapted in various states and nations.

Our college calendar resonates with vibrant festivals with student and faculty participation. From lively Holi to joyful Diwali, we observe harmonious festivities in their varied traditional splendor. The joint observances of these festivals facilitate understanding and appreciation of different practices of people from different geographical, religious and linguistic backgrounds.

Cultural programmes conducted by various student clubs become the hubs for expression of creativity and passion enabling students to bond with fellow college mates from different backgrounds. As they find common interests, they become lifelong friends. Some of the most memorable of such occasions include the campus-wide food festivals where students get a chance to enjoy foods from different places and experience India's culinary diversity. Through sharing of flavour, students come together and strengthen their bonds in the light of new understanding about different ways of life. Building relationships with students from various backgrounds helps students improve interpersonal skills.

At Sona, beyond the activities of the students' clubs, the learning about inclusivity and tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities also happens even outside the regular curriculum. Courses based on cultural diversity in India are offered to open the windows to understanding about different ideologies and practices. Each of these courses provides students the insight to appreciate deeper into our nation's richness in history and culture and it encourages sensitivity as well as inclusivity.

Outside of the campus walls, we are committed to lift the condition of poor farmers, students and disadvantaged communities with livelihood trainings leveraging the institution's technological, teaching and infrastructural resources. These training programmes equip them with useful skills that give an opportunity for standard job prospects. Their active participation proves that, at Sona, inclusion prevails not only within our institute but also in society as a whole.

In other words, our college is a reflection of India's vibrant diversity where differences are not only accepted but also celebrated. By means of a variety of the above initiatives, programmes and celebrations, we create an atmosphere in which every person can feel adequately appreciated, valued and self-assured to reach his or her potential. This is not merely institutional objectives; rather, an ethical principal of life that will guide our activities towards an authentic inclusive future.

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

7.1.9

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

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

Response:

Sona College recognizes the importance of sensitizing its students and employees to their constitutional obligations, which include upholding values, understanding rights, fulfilling duties, and embracing responsibilities as responsible citizens of India. Sona College places a strong emphasis on fostering values that align with the principles enshrined in the Indian Constitution. The institution encourages students and employees to uphold values such as integrity, equality, justice, and respect for diversity. Various activities, including workshops, seminars, and discussions, are organized to promote these values as fundamental pillars of a just and inclusive society. Recognizing one's rights is crucial in any democratic society. Sona College takes proactive measures to educate its community about their constitutional rights. Workshops, lectures, and awareness campaigns are conducted to inform students and employees about their fundamental rights as citizens of India. This knowledge empowers individuals to exercise their rights responsibly and advocate for justice when necessary. The institution encourages active engagement in civic life and educates students and employees about their obligations towards society, thereby promoting a sense of duty and responsibility.

Curriculum Integration:

Sona College’s curriculum integrates constitutional values across disciplines, ensuring students grasp the essence of democracy, equality, and justice. From engineering to humanities, modules include discussions on citizenship rights, responsibilities, and the significance of upholding constitutional values in professional and personal spheres.

Awareness Programs

Empowering students, the college encourages them to initiate campaigns promoting constitutional awareness. From organizing debates to conducting awareness drives, students lead initiatives fostering a sense of civic duty and responsibility. Regular workshops and seminars dissect constitutional obligations, inviting experts and scholars to impart practical insights. These sessions cultivate critical thinking, encouraging participants to examine societal issues through a constitutional lens. The sensitization efforts have led to a notable behavioral transformation among students and employees. They exhibit increased awareness, empathy, and commitment towards upholding constitutional obligations.

Digital India Initiative

Sona College of Technology passionately embraces India's Digital India Initiative, aligning its ethos with technological advancement. Embracing this national campaign, the college integrates digital infrastructure, fostering innovation and access. From digitized learning resources to skill development in emerging technologies, the institution empowers students to thrive in the digital landscape. It champions connectivity, leveraging technology for efficient administration and enhanced educational experiences. Sona College’s commitment to the Digital India Initiative resonates in its efforts to equip students with the digital fluency crucial for success in the ever-evolving global digital ecosystem.

Social Outreach Programs

The institution ensuring a discrimination-free environment. The institution's commitment to equity, fostering a culture of respect and dignity for all. Faculty and staff undergo specialized training sessions, aligning their roles with constitutional principles. This empowers them to serve as role models, effectively imparting these values to the student body. The students will also have many leadership programs that will help them in the future to become a leader in any institute or maybe in politics.

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

7.1.10

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

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

Response: A. All of the above

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

7.2 Best Practices

7.2.1

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

Response:

Best Practice - 1

Title: SONACARE

1. **Objectives of the practice**
   - The Sona Students' Speakers' Forum (SSSF) promotes effective speaking with ABC principles: Accuracy, Brevity, and Clarity.
   - Peer tutoring is a strategy where students practice teaching skills for individualized attention in diverse classrooms.
   - SONA NPTEL LOCAL CHAPTER offers free online courses in Engineering, Sciences, Humanities, and Management by the Indian government.
   - The Entrepreneurship Development Cell (EDC) raises awareness among students about entrepreneurship for individual and national development.
2. **The Context**

- Peer tutors enhance classroom support by delivering content on specific topics.
- NPTEL provides courses in Engineering and Science and Humanities disciplines, including all departments.
- Entrepreneurship Development programs cover all aspects with real-time examples.

3. **The Practice**
   - Each branch of EDC designates faculty coordinator to impart knowledge about entrepreneurship to students. The student committee, comprising a CEO, Vice President, and Secretary from each department, guide students who aspire to become entrepreneurs.
   - NPTEL's practice is widely praised by students, educators, and industry professionals. It has significantly contributed to making quality education accessible nationwide.
4. **Evidence of Success**
   - Sona College of Technology has achieved the First Position in NPTEL's Faculty Performance rating among 6000 NPTEL Local Chapters nationwide during July-Dec 2023 examinations. This marks the college's fifth consecutive First Position in faculty performance rating.
   - Sona College of Technology has achieved in EDC Department of Mechatronics won 2nd place with Rs. 5 Lakhs cash prize and Department of Fashion Technology won 4th place with Rs. 3 Lakhs cash prize and for the inventions and Business Plan Presentation – Manthan 2022
5. **Problem Encountered and Resources Required**
   - Initially, many students hesitated to participate in EDC activities. However, after its success, students voluntarily join and actively engage in the activities organised by Entrepreneurship Development Cell.
   - SCT maintains a robust industry relationship, collaborating consistently in the areas such as placement, internships, in-plant training, industrial visits, guest lectures/seminars, faculty training for and from the industry, research, and consultancy. Currently, sona has linkages with over 300 industries.
   - Regarding NPTEL course completion rates, online learning demands self-motivation, posing challenges for some students. Additionally, NPTEL may not cover all subjects in a typical B.E curriculum, making it challenging to replace all existing courses, especially in the BME and FT departments.
6. **Notes**
   - Speakers from our Forum excel in placement interviews and secure jobs in top-tier companies. Many of them, recognised in the Speakers Forum, also win awards in Inter-Collegiate contests.
   - NPTEL's certification programmes are widely acknowledged by employers in India, providing a significant boost to job prospects and career advancement.
   - Industry Institute Interaction is instrumental in faculty and departmental self-development, enhancing student placement opportunities.

Links to support

https://www.sonatech.ac.in/naac/SSR/Criteria_07/7.2_Best_Practice/7.2_Best_Practice_1.pdf?cat1=SSR&cat2=Criteria_07&cat3=

https://www.sonatech.ac.in/naac/SSR/Criteria_07/7.2_Best_Practice/7.2_Best_Practice_1_EDC.pdf?cat1=SSR&cat2=Criteria_07&cat3=

Best Practice – 2.

Title: SONA BRIDGE

1. **Objectives of the practice**

   - Sona CSRI aims to raise awareness about skill development initiatives and livelihood opportunities. Conducting a baseline study in demand-driven business/ sectors, CSRI analyzes skill gaps, and identifies training.

   - In SONA COIN's 'Waste to Wealth' initiative, eco-friendly concrete products use industrial waste materials. These include fly ash, GGBS, steel slag, granite powder, plastics, and waste-used papers, contributing to sustainable practices for industries in the Salem region.

2. **The Context**
   - Sona CSRI is dedicated to enhancing employability skills for the betterment of marginalized communities and to improve their economic status.
   - The 'Waste to Wealth' initiative focuses on manufacturing eco-friendly cementless dry interlocking blocks and curtain wall panels from polyethylene waste.
3. **The Practice**
   - The CSRI is actively involved in empowering women through skill development initiatives. SONA-CSRI's initiatives encompass employability skills, life skills education, and sector-specific work skills, complemented by internships and career counseling.
   - In the 'Waste to Wealth' program, recycled plastic waste is effectively utilized as a partial replacement for fine aggregate in the production of paver blocks
4. **Evidence of Success**
   - The CSRI has provided skill development and livelihood promotion to benefit more than 629 underprivileged individuals. Collaborating with the Government, Corporate sector, and the community, CSRI engages in delivering services to the target groups. Additionally, CSRI participating in the Village adoption program under Unnat Bharat Abhiyan to enhance the well-being of rural communities.
   - In the "Waste to Wealth" initiative on our campus, we manufacture eco-friendly concrete products. These products are not only used on-campus but are also supplied externally.
5. **Problem Encountered and Resources Required**
   - Sourcing differently-abled individuals poses a challenge, but we organize necessary campaigns to overcome these obstacles.
   - Our skill training programs cover various sectors, including Beauty Therapists, Assistant Hairstylists, Fashion designers, Hand embroiderers, Self-Employed Tailor, Sales associates in Retail, plumbers (General), Assistant electricians, and CCTV installations.
   - In our "Waste to Wealth" initiative, we utilize Energy Optimizing Furnace (EOF) steel slag as coarse aggregate (100%) and fine aggregate (50%), we maintain the concrete strength required for road separators. Additionally, recycled plastic waste in paver blocks and concrete enhances crack resistance, controlling minor cracks originating from within the concrete mix.

6. **Notes**
    - CSRI has collaborated with key stakeholders, including the Tamil Nadu Skill Development Corporation, AICTE, the Indian Centre for Research and Development of Community Education (ICRDCE), the Education Department, Social Welfare Departments in the district, Corporations, and the broader community. To identify potential skilling and employment opportunities and implement effective schemes for our programs.
    - In the "Waste to Wealth" initiative, we employ a process to create eco-friendly curtain wall panels and develop products utilizing waste papers

Links to support

https://www.sonatech.ac.in/naac/SSR/Criteria_07/7.2_Best_Practice//BestPractice2CSRI.pdf?cat1=naac&cat2=SSR&cat3=Criteria_07

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:

INDUSTRY INSTITUTE INTERACTION

Introduction

- Sona College of Technology fosters a vibrant industry-academia linkage, bridging the gap between theory and practice. Through strategic collaborations with industry leaders, the institute provides students with hands-on experiences and cutting-edge insights, ensuring that they are well-equipped for dynamic and real-world challenges.

Vision

- To strengthen the partnership between industry and academia, to create a collaboration that boosts innovation, enhances education, and drives economic growth.

Mission

- To establish robust partnerships with industry leaders, fostering collaboration in research, education, and technology. It able to support entrepreneurship, by fostering innovation and job creation through resources and mentorship.

Efforts between industry and academic linkage

- The Institution encourages joint research projects, by providing hands-on industrial experiences through internships, curriculum updation with industries trends, and establishment of platforms for seamless knowledge exchange, to fostering innovation between academia and industry.

Policy of industry and Academia Linkage

- Establishes a collaborative framework with clear goals, expectations, and sustained partnerships. Define transparent intellectual property guidelines for collaborative projects.

Best Industry Linkage in Industry Institute Interaction

Sona College of Technology has won the prestigious AICTE-CII Best Industry Linked Institute award for the first time in the year 2013 **in Computer Engineering and IT'** category among 1050 survey participants and 37 shortlisted institutions. In 2015, Sona College of Technology received the AICTE-CII '**Best Industry Linked Electrical and Allied Engineering Institute**' category among 1124 institute participants. Once again Sona bagged the prestigious '**PLATINUM '** category certification in the **AICTE-CII Best Industry Linked Technical Institutes-2016** survey. This is materialized based on the second-level evaluation by the jury at the institution for the Department of Fashion Technology under the Chemical Engineering and Allied category. In 2017, AICTE–CII appreciated and honored the Department of Civil Engineering of Sona College of Technology with the title '**Best industry linked Established–Degree Institution'**. For the year 2018, AICTE–CII appreciated and conferred the awards for two departments namely Mechanical Engineering and Fashion Technology of Sona College of Technology under the '**Best Industry linked Established – Degree Institution'** category. It was another feather added to SONA's crown. The Department of Fashion Technology and the Department of Computer Science and Engineering & Information Technology have won the '**AICTE-CII Best Industry linked Engineering Institution award**' for 2019 -2020. The coveted award was bestowed upon Sona College of Technology by the All-Indian Council for Technical Education (AICTE) in association with the Confederation of Indian Industry (CII) for the sixth time since the inception of the award in 2013. For the second time, Sona became the only institute to receive two AICTE-CII awards in a year across the country.

In 2020, the Fashion Technology department was converted with the 'Mentor Award' by AICTE-CII since their development has received the AICTE-CII Award for 3 consecutive years.

As a proud recognition for the above industry-interaction activities, Sona has received AICTE- CII best industry linked institute awards ever times as below.

- 2013 - Computer Science Engineering and IT Department.
- 2015 - Electrical Engineering Department.
- 2016 - Received Award Under Platinum Category for Fashion Technology Department.
- 2017 - Civil Engineering Department.
- 2018 - Mechanical Engineering and Fashion Technology Department
- 2019 - Computer Science Engineering & IT Department and Fashion Technology Department.
- 2020 – Received Mentor Award for And Fashion Technology Department.

These achievements were possible only by the continuous linkage with industries in the areas like internship, in-plant training, industrial visits, guest lectures/seminars, Train – the – trainer, research, and consultancy.

Sona has attracted more than 100+ Companies, giving more than 740 Job Offers (30% of Students fetching multiple Offers) with an average CTC of 4.5 LPA from Software Products & Services Industries like Amazon, CISCO, Optum Insight, OpenText, Qube, IBM, Infosys, TCS, Cognizant, Wipro, Hexaware, Robert Bosch, HCL Technologies, Tech Mahindra, Kaar Technologies, Vuram Technology, BNP Paribas, IVTL Info view, SoqueTek, Deevita, SunTec, First American, Nexware, CGI, ATOS Syntel, etc., catering to Telecommunications, Automotive Vehicles, Pharmaceuticals, Banking & Finance, Web & Mobile Applications and Entertainment Sectors.

For the Core Engineering branches, we have Elgi Equipment’s, Ashok Leyland, Rane, Tube Investments India, Brakes India, Renault Nissan, Gusti Tools, Worksbot, Uno Minda, Stanadyne, Vector Works, URC Constructions, SS Group, Syrma Technology, Mistral Solutions, Axis Global & Automation, Taegutec, VR Earthmovers, Aditya Birla Clothing, Gokuldas Exports, Human Resocia of Japan, etc.

Sona College of Technology is consistently the preferred educational institution for industries to collaborate due to its diverse offerings. Sona always seeks to engage the industry in all its academic, research, and consultancy activities, as outlined below. The entire 8th semester is allocated for internships, allowing students to gain practical experience in industries.

- Offers industry-related electives to provide students with practical exposure.
- Sona's curriculum includes industry training or internships during summer or winter vacations, recognized as credit courses.
- Signing Memorandums of Understanding (MOUs) with various industries for the mutual exchange of knowledge and research is one of the quality objectives with a specific target.
- We are involving more industry members on the board of studies to address industry requirements, which need to be incorporated into the syllabus.
- It is mandatory for all faculty members to undergo 40 hours of industry training every year.
- Offers postgraduate programs in collaboration with the industry.
- Sona's faculty members provide training to industry professionals on new technologies.
- Many projects are submitted to funding agencies in collaboration with industries.
- Industry visits are arranged for faculty members to stay updated on the latest developments.
- Adjunct faculty members from the industry are selected to instruct our students.
- Collaborative research projects with various industries are currently underway.
- Our faculty actively engages in publishing research articles and obtaining patents through collaborations with industry partners.
- Sona is involved in several industry research projects funded by industries through CSRI.

File Description	Document
Any other relevant information	View Document
Appropriate webpage in the Institutional website	View Document

5. CONCLUSION

Additional Information :

Sona College of Technology has state-of-the-art teaching learning facility and a rigorous assessment procedure, incorporating tools such as Lecture Capturing System to provide the students with access to the recorded lectures, Blackboard Learning Platform and MOODLE. HireMee is an online platform used for placement-based assessments.

Up to thirty student clubs serve as venues for nurturing a wide spectrum of students' interests and skills.

The library and information centre is a knowledge power house having about 1 lakh textbooks and other reference materials.

Sona Incubation Foundation collaborates with IIT Madras Incubation Cell and nurtures start-ups in areas like electric mobility and wearable technology. The Sona Business Incubation Center supports more than 10 start-up projects. The Power-on-Me platform is a unique forum that promotes business innovation through regular ideation sessions for its own students and students of other colleges. SCT promotes student start-ups through the Ministry of Human Resources' Institutional Innovation Council and conducts workshops and training in entrepreneurship through Sona Entrepreneurship Development Cell. Sona has signed a Memorandum of Understanding with many National and International Institutions in order to give the students a broad-based exposure. The robust industry-institution collaboration of Sona finds reflection in its industry experts-led curriculum design and achievement of a consistent 95 percent of students finding placements, taking up entrepreneurship and pursuing higher studies.

With more than 5000 students enrolled in the college currently, SCT has a global alumni community of 21,000 members that span many countries and continents.

SCT has implemented ISO 9001:2015 for sustenance and enhancement of quality.The processes and procedures are regularly evaluated and improved by ISO internal and external audits and academic audits to give its students and staff the highest level of educational value.

The Department of Physical Education offers comprehensive training in sports and games resulting in notable achievements in various tournaments across Anna University Zone, Inter Zone, District, State, and National level competitions.

The National Service Scheme has 2 funded units with 100 student volunteers per unit. The National Cadet Corps has 2 funded units, one each for boys and girls.

Concluding Remarks :

In essence, Sona College of Technology stands as an embodiment of commitment towards holistic education and innovation. As an autonomous engineering institution, SCT is geared towards achieving distinction in research, innovation, and global standard education. Its strategic approaches draw attention to industry-driven research, fostering an environment that promotes innovation and business incubation. SCT's commitment to industry linkages and academic-industry synergy is evident through collaborations with prestigious

organisations like ISRO and recognition through awards like AICTE-CII Award. Further, SCT's core pillars include research and innovation, with state-of-the-art facilities supporting ground-breaking projects like Brushless DC Motors, Stepper Motors for India’s prestigious moon missions including the recent Chandrayaan – 3 and ensuing Gaganyaan. The institution's motto 'Learning is a Celebration' emphasises the student welfare and academic quality. Its curriculum evolution and teaching strategies focus on flexibility, multidisciplinary learning, and continuous improvement. SCT’s governance and management reflect an inclusive and accountable approach, with diverse committees overseeing institutional affairs and a strong accentuation on quality assurance, professional development, and sustainable practices.

6.ANNEXURE

1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification
1.3.2	**Number of certificate/value added courses/Diploma Programmes offered by the institutions and online courses of MOOCs, SWAYAM/e-PG Pathshala/ NPTEL and other recognized platforms (without repeat count) where the students of the institution have enrolled and successfully completed during the last five years.** Answer before DVV Verification : Answer After DVV Verification :94 Remark : DVV has made the changes accoriding to the data template document .
1.3.3	**Percentage of programmes that have components of field projects / research projects / internships during the last five years.** 1.3.3.1. **Total Number of programmes that have components of field projects / research projects / internships (without repeat count) during the last five years** Answer before DVV Verification : 28 Answer after DVV Verification: 28 1.3.3.2. **Total Number of programmes offered (without repeat count) during the last five years** Answer before DVV Verification : 28 Answer after DVV Verification: 28 Remark : DVV has made the changes as per shared report by document .
2.4.2	**Percentage of full time teachers with Ph.D./D.Sc. / D.Litt./ L.L.D during the last five years** 2.4.2.1. **Number of full time teachers with *Ph.D./D.Sc. / D.Litt./ L.L.D* during the last five years** Answer before DVV Verification : 207 Answer after DVV Verification: 164 Remark : DVV has made the changes according to the data template document .
2.4.4	**Percentage of full time teachers working in the institution throughout during the last five years** 2.4.4.1. **Number of full time teachers worked in the institution throughout during the last five years:** Answer before DVV Verification : 205 Answer after DVV Verification: 153 Remark : DVV has made the changes according to the data template document .
3.4.2	**Number of candidates registered for Ph.D per teacher during the last five years** 3.4.2.1. **Number of candidates registered for Ph.D during the last 5 years:**

Answer before DVV Verification : 154
Answer after DVV Verification: 89

Remark : DVV has made the changes accoridng to the document candidates registered for Ph.D

3.4.3 **Number of research papers published per teacher in the Journals as notified on UGC CARE list during the last five years**

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

Answer before DVV Verification : 1595
Answer after DVV Verification: 986

Remark : DVV has made the changes accoridng to the data template document .

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

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

Answer before DVV Verification : 377
Answer after DVV Verification: 365

Remark : DVV has made the changes according to the data template document .

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

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

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
40.64869	34.97990	34.28361	34.85718	30.27142

Answer After DVV Verification :

2022-23	2021-22	2020-21	2019-20	2018-19
40.64	34.97	34.28	34.85	30.27

Remark : DVV has changes the input in lakh .

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

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

Answer before DVV Verification:

2022-23	2021-22	2020-21	2019-20	2018-19
1180	1115	1074	1087	1132

Answer After DVV Verification :

2022-23	2021-22	2020-21	2019-20	2018-19
1157	1060	1027	1087	1078

Remark : DVV has made the changes according to the supporting document .

2.Extended Profile Deviations

Extended Profile Deviations
No Deviations