SELF STUDY REPORT

FOR

3rd CYCLE OF ACCREDITATION

SREE BUDDHA COLLEGE OF ENGINEERING, PATTOOR

SREE BUDDHA COLLEGE OF ENGINEERING, PATTOOR, PATTOOR P.O,
NOORANAD, ALAPPUZHA, KERALA-690529
690529
www.sbce.ac.in

SSR SUBMITTED DATE: 14-08-2024

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

August 2024

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Sree Buddha College of Engineering, affiliated to APJ Abdul Kalam Technological University, has been par excellence in technical education. The sermons of Lord Buddha gave us a lead to be the flowers of exaltation. The primary objective is to promote education and research in the field of technology and to replenish the skills that get lurked in the budding technocrats. All the members of SBCE push themselves to set the institution as an example to the world. The institution is now accredited by National Board of Accreditation for 4 Undergraduate Programmes and re-accredited with NAAC with effect from Nov 2019. **Also the college has been conferred Autonomy by the UGC from 2024-25 Academic Year onwards**

Founded in 2002, Sree Buddha College of Engineering follows the cardinal teaching of Lord Buddha for educating the whole generation imbued with real values of life. The college focuses on the overall personality of students, empowering them to face future challenges. The college has excellent infrastructure, well equipped laboratories with modern instruments to ensure world-class education, and has qualified & well experienced faculty.

Situated at Pattoor near Pandalam, a rural area of immense scenic beauty, the college is located in a lush green and picturesque landscape spread over an area of land overlooking a panoramic lagoon bordered by hillocks. The environment friendly and serene atmosphere of the campus provides a refreshing ambiance for the mind and soul.

The college offers 9 UG and 6 PG programs in Engineering and Technology. The College has been re-accredited for the 2nd cycle by NAAC in 2019. The College as a co-educational, multi-faculty, self-financed institution has completed 22 years of yeoman service, offering Professional education for 1400+ students. The college has 98 qualified teachers with Ph.D. holders and PG qualifed along with 65 non-teaching supporting staff. The institution has a lot of demand near cent percent enrollment, most of the students are having more than 70% marks in their pre-qualifying examination

Vision

OUR VISION

To create professionally competent Engineers with human values and social commitment.

Mission

OUR MISSION

- Offer well balanced curriculum with student-centric approach.
- Encourage students to participate in innovation, lifelong learning and research.
- Impart ethical and human values focusing on rural needs and sustainability.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

Co-educational, self-financing, multi-faculty, professional College of 22 years outstanding education service. Recognition by APJ Abdul Kalam Technological University, AICTE and UGC under 2f.

One of a few colleges which have already completed 2 cycles of accreditation by both NAAC and NBA. The College has sincere, dedicated, and highly committed faculty focused on the students' growth and development

Achievied the autonomous status for the academic year 2024-2025 based on the attainment of intended learning outcomes

Innovative teaching and learning process and institutional LMS and YouTube Channel are effectively followed to ensures holistic education development of students

The diverse Curriculum with interdisciplinary approach with POs, COs & CBCS and Add on Courses is integrated with ICT to enhance employability and competency.

State-of-the-art Physical Infrastructure and learning resources and IT at par with national standards to promote academic excellence

Reputed & participative management system, benevolent management with financial stability

Excellent success rate, significant University Ranks

Emphasis on student capacity building, inclusiveness, training, activities, and placements/ progressions.

Thrust to gender, equity, environment, sustainable development, and outcome-based extension activities with good numbers of MoUs with academic and industry

Institutional Weakness

The examinations are controlled by affiliated university which leads to asess the attainment of outcomes in limited way

Limited research grants from Government / Non-Government funding agencies.

Being an affiliated institution of a state University limited scope for adopting an interdisciplinary innovative curriculum.

There is limited revenue generation done through research and consultancy work.

Institutional Opportunity

Apply for funding resources from, Ministry of Science and Technology, Govt. of India in order to develop and promote basic research in the college and to enable enrichment of the applied aspects of teaching and learning.

Improvement in the scope of National/international MOUs and linkages for collaborative research & academic exchanges for the students and faculty.

The establishment of Entrepreneurship Development Cell & Incubation center will help in creating an ecosystem encouraging students for Startups

Establishment of Innovation cell and IPR cell improves the translation research into product.

To strengthen alumni associations for their involvement in developmental, academic, research, and mentorship activities of the students.

Institutional Challenge

Difficulty in getting govt. grants for research and development for the self-financing college.

To innovate VAPs, curricular, delivery, pedagogy, exam reforms, within the affiliating systems.

Motivating UG teachers to undertake research due to heavy UG teaching workload

Difficulty in Academic – industry – NGO interactions

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

Sree Buddha College Of Engineering, Pattoor is affiliated to APJ Abdul Kalam Technological university, Kerala. Sree Buddha College of Engineering has clear vision and missions to accomplish effective curriculum delivery and Program Educational Objectives. The college makes every effort to realize its mission of developing competent human resource through quality education, by creating innovative educational environment and promoting creativity to develop skilled human resource. The University revises the curriculum once every four years. The institute has its own Internal Quality Assurance Process, which is steered by the Internal Quality Assurance Committee (IQAC) to keep pace with the changing needs of the curriculum. The Academic Calendar is created by the Institute to ensure that all academic events are scheduled in accordance with the University Calendar. With the aid of audits, course instruction, problem-based learning, and other employability enhancement initiatives, it guarantees a continuous internal assessment system. Every semester, every faculty member at the institute prepares their course file for efficient planning and delivery of the academic program.

Faculty members perform Mapping of Course Outcomes with the Program Outcomes to identify the Curriculum Gaps and plan for various Gap fulfilment activities. Value-added courses are arranged by college with the aid of industry professionals, alumni, or faculty members at the Institute to cover subjects outside of

the curriculum. Courses are also offered as online learning platforms, NPTEL courses, conferences or seminars. The university has added audit courses to its curriculum to teach students about basic values like leadership, personality development, environmental values, professional ethics, and human values. From the first to the last year of the Undergraduate and Postgraduate Engineering program, projects, internships, and project-based learning are an essential component of the curriculum for every student. Through the NSS Unit, Nature Club, Women's Cell, and Anti-Ragging Squad, the institution incorporates cross-cutting topics related to gender, the environment and sustainability, human values, and professional ethics into the curriculum.

Teaching-learning and Evaluation

The State government oversees student admissions, which are reviewed and advised by the Kerala Entrance Commission via an online counseling system. Also Institution enrollment is consistently higher in all academic years. Faculty members who are highly qualified and motivated are appointed to serve the academic community. The faculty at the institute is incentivized to improve students' academic performance and research skills in order to facilitate the adoption of positive learning processes. This covers the co-curricular and extracurricular requirements of students with a range of backgrounds and skill levels, enabling them to excel in all engineering-related endeavours. Every activity in the college is scheduled according to the college academic calendar, which is in line with the KTU calendar. By means of an efficient mentoring system, teachers are optimizing their efforts to convey information in their particular engineering fields to students during the allotted contact hours. Furthermore, all educators are eager to provide more content through pedagogical activities like quizzes, presentations, crossword puzzles, and flipped classrooms. Collaborative, immersive, and participatory learning have improved students' evaluations of academics. Regular activities such as field trips, expert lectures, and internships are implemented to improve the contact with industry. Students who participate in the departments' consulting work also get new expertise. The teaching-learning and evaluation process has improved with the use of various ICT technologies, and this has helped to open doors to the most recent advancements in a variety of engineering specialties. It has been noted that the processes of teaching and learning are useful in reaching all of the goals set forth for the courses and certain programs that have program outcomes.

Research, Innovations and Extension

Various cells that support the innovation ecosystem foster innovation and research, innovation, and extension activities. Through conducting awareness seminars on contemporary technologies and research technique, as well as offering help on applying to various funding organisations, the Research and Development Cell encourages academic members and students to foster research activities.The institute's IPR Cell organises several awareness workshops to encourage teachers and students to pursue IPR. In the last five years, a total of eight copyrights and patents have been submitted and granted. Entrepreneurship Development Cell (IEDC) AND Institute Innovation Cell (IIC) established in the institute organizes various awareness sessions such as

how to develop entrepreneur skills, build start up culture etc.

Over the previous five years, the institution has organised events related to research, IPR, entrepreneurship, and startup. The organisation have various professional societies like such as IEEE, ISTE, and others.
Through these chapters, many seminars, conferences, project contests, and technical events are arranged.
Over the past five years, a variety of research papers, books, book chapters, conference proceedings, and UGC Care and Web of Science have all been indexed. The institute features PhD research centres in its two main departments, mechanical engineering and computer science, which are connected to more than ten mentors and twenty research scholars who are presently pursuing PhDs. Software for checking plagiarism is available; examples include Turnitin and Urkund.

The institute's NSS unit and departmental student clubs conduct extension activities that support a range of community engagement initiatives. Students take part in events like blood donation drives, school cleanups, etc. Through these exercises, kids learn about societal issues, hone their communication and teamwork abilities, and grow into more compassionate human beings. Memorandums of Understanding (MoUs) between the institute with several industries provide regular activities including internships and student development programs

Infrastructure and Learning Resources

The Institute is spread over 29.59 acres of land richly endowed with beautiful landscaped campus. The total built up area is 10799.45 Square meters. The Institute has adequate infrastructure crucial for facilitating the teaching-learning process, comprising Classrooms, Seminar halls, Laboratories, Workshops, and Research space. Every department is equipped with ICT-enabled classrooms and a dedicated departmental library. Name and sign boards are placed for the easy identification of various locations.Adequate budgetary provision has been provided for annual maintenance and renewal of physical infrastructure, including laboratory equipment. Over the last five years, 148.93 lakhs have been spent for infrastructural upgradations. Average amount of 224.26 lakhs has been spent on physical facilities and academic support facilities excluding expenditure on employee salary.

The Central Library of our institute is well-equipped with Reference Section, Journal Section, Reading Hall, Digital Library and Stack-Room. Library automation has been done with ILMS version 1.0.156. The library has an extensive collection of 34813 volumes, 94 Journals and technical magazines, as well as 6000+ e-journals and e-books. The faculty/students/research scholars can access the online and offline electronic resources from the Digital Library section. IP-enabled access is provided to NPTEL Videos, and e-journals and e-books subscribed through different consortiums like IEI-SPRINGER, Science Direct, DELNET, and NDL.

All the library activities are computerized, which include barcoded ID cards and separate online Public Access Catalogue (OPAC) terminals for searching books in the library, and Wi-Fi and other tools to provide access to the library collection.

Institution is having state-of-the-art IT infrastructure which is being continuously upgraded according to the advancement in technology and demands of the teaching learning process. In order to strengthen the IT infrastructure, the institute has been providing the best quality computers, sufficient internet bandwidth, CCTV, licensed & open source software, Wi-Fi devices, UPS, ERP software. The campus has been enabled with Internet bandwidth services on 24X7 support, providing anytime anywhere access to knowledge and learning resources. The college campus and hostel is Wi-Fi enabled with an Internet broadband speed of 400Mbps.

Student Support and Progression

In order to promote students' academic achievement, personal development, and professional advancement, SBCE is dedicated to provide comprehensive student support and progression services. The Institute offers its students a wide range of support services in addition to a top-notch education, such as:
Scholarships and Freeships: To help students' academic endeavors, the Institute makes scholarships and freeships offered by governmental and non-governmental organizations easier to access.
Career counseling and competitive exam guidance: Through expert sessions, career guidance seminars, and interactions with accomplished alumni and industry experts, the Institute gives students the support they need to prepare for competitive exams and make well-informed career decisions.

Placement Support and Higher Education: The Institute offers students efficient placement support services that help them get employment and prepare them for post-graduation and research programs, among other higher education options.
Assistance for National and International Level Exams: Through expert sessions, seminars, and conferences, the Institute helps students get ready for national and international level exams like the GATE, GRE etc.

Support for Sports and Cultural Activities: The Institute promotes students' involvement in sports and cultural events and gives them the tools they need to compete at the national and inter-institutional levels.

Alumni Engagement and Grievance Redressal Mechanism: The Institute has a strong Grievance Redressal Mechanism in place to handle complaints from students in a timely and efficient manner. Through the Alumni Association, the Institute maintains contact with its former students and supports their involvement and growth within the institution.
The goal of the Institute's student assistance and advancement programs is to foster a welcoming and inclusive learning environment that meets the various requirements of the student body. The Institute's dedication to innovation and ongoing development in every facet of its student support services guarantees that its students get the best assistance available to meet their academic and career objectives. The institute is renowned for its alumni who have registered as global citizens. Extra efforts are put into facilitating alumni contacts with current students.

Governance, Leadership and Management

The college's vision and mission are well-defined, and it has well-defined procedures for enhancing academic quality and infrastructure.. In order to fulfil the demands of society, it offers high-quality education through inventive ideas, cutting-edge technology, and entrepreneurial skills. Proper governance and decentralisation to accomplish goals demonstrate effective leadership. There is a centralised governing structure that includes the Departmental Advisory Board (DAB), Internal Quality Assurance Cell (IQAC), Governing Body (GB), and other institute-level committees. This structure considerably improves the Institute's standing among the nation's highest ranked institutions.With regard to all parties involved, the Institute has a framework in place to guarantee clear standards for both academic and administrative operations. Through authority delegation, learning environments that are supportive of learning, and a positive work culture, the Institutional Strategic Plan has proven beneficial in The Institutional Strategic Plan has been effectively deployed through delegation of powers, conducive learning, pleasant work culture for its quality improvement and holistic development.

The Principal represents the Institute and is aided in making decisions by Deans, Heads of Departments, Academic Coordinators, College Examination Officers (CEOs), and Section In-Charges.
The Institute's qualified instructors can establish a welcoming and stimulating learning atmosphere on campus. The hiring process is conducted in accordance with UGC guidelines.. Enhancing qualifications, publishing high-quality works, consulting, faculty development programs, etc. are encouraged for faculty members. Professional memberships, research work, and conference attendance are all financially supported. Every year, faculty members have their performance evaluated. The institute has policies and plans in place to guarantee financial management is transparent. Operational and permanent assets are useful tools for managing the effective mobilisation and use of resources and finances.

. The Institute also offers an IQAC for academic achievement and ongoing progress. By giving students a top-notch education to help them fulfil the Institute's overall mission and vision, it contributes to the improvement of quality.

Institutional Values and Best Practices

The Vision of the College is formulated to uphold human values and social commitment.Regular activities are carried out at the Institute to raise awareness about critical and evolving issues such as gender equity, environmental awareness, and sustainability. The Institute advocates for gender equity through a variety of strategies, including a zero-tolerance policy towards sexual harassment, placing women in leadership roles, and implementing gender sensitization plan. To support gender equity, the Institute offers safety and security protocols, designated common areas, accommodation, counseling, and health services. Additionally, it observes various national and international days and festivals to foster national unity, social responsibility, and patriotism.

The Institution is dedicated to promoting eco-friendly practices through several key initiatives such as energy conservation, waste management,water conservation, green campus and disability accessibility. Institutional eco-friendly initiatives verified via audits, and clean campus efforts. The institute organizes pre-placement training programs including aptitude skills, technical skills, motivational lectures and mock interviews to enhance student’s employability under placement cell. Also, to bridge the gap between industry and academia, the Institute on regular basis organizes enrichment programs like value-added courses on the latest technologies to increase student interest in research activities and publications. These are the best practices followed by the Institute on regular basis .The Institute focuses on holistic development of students, with emphasis on intellectual, social, physical, and emotional development. Activities such as research, patents, and guest lectures promote intellectual development, while social clubs and community service activities build social skills. Physical development is encouraged through sports events and yoga sessions. The mentor-mentee system and counseling services ensure emotional well-being. The approach has produced graduates who are intellectually competent, morally sound, and socially committed.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	SREE BUDDHA COLLEGE OF ENGINEERING, PATTOOR
Address	Sree Buddha College of Engineering, Pattoor, Pattoor P.O, Nooranad, Alappuzha, Kerala-690529
City	Nooranad Alappuzha
State	Kerala
Pin	690529
Website	www.sbce.ac.in

Contacts for Communication					
Designation	**Name**	**Telephone with STD Code**	**Mobile**	**Fax**	**Email**
Principal	K. Krishnakumar	0479-2375440	7907697944	0479-2375441	sreebuddha@ktu.edu.in
IQAC / CIQA coordinator	Senthil Saravanan M S	0479-269225	6369282379	0479-2375441	me.senthils@sbcemail.in

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minroity institution	No

Establishment Details

State	University name	Document
Kerala	A.P.J. Abdul Kalam Technological University	View Document

Details of UGC recognition		
Under Section	**Date**	**View Document**
2f of UGC	13-02-2013	View Document
12B of UGC		

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)

Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	View Document	30-04-2019	12	Extension of Approval
AICTE	View Document	30-04-2019	12	Extension of Approval
AICTE	View Document	30-04-2019	12	Extension of Approval
AICTE	View Document	30-04-2019	12	Extension of Approval
AICTE	View Document	30-04-2019	12	Extension of Approval

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	Sree Buddha College of Engineering, Pattoor, Pattoor P.O, Nooranad, Alappuzha, Kerala-690529	Urban	29.59	10799.45

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	BTech,Electronics And Communication Engineering,	56	PLUS TWO	English	30	28
UG	BTech,Electrical And Electronics Engineering,	56	PLUS TWO	English	30	17
UG	BTech,Biotechnology And Biochemical Engineering,	56	PLUS TWO	English	30	14
UG	BTech,Mechanical Engineering,	56	PLUS TWO	English	120	26
UG	BTech,Computer Science And Engineering,	56	PLUS TWO	English	60	58
UG	BTech,Computer Science And Engineering,Artificial Intelligence and Machine learning	56	PLUS TWO	English	139	139

UG	BTech,Civil Engineering,	56	PLUS TWO	English	60	36
UG	BTech,Food Technology,	56	PLUS TWO	English	30	12
UG	BTech,Electronics And Computer Engineering,	56	PLUS TWO	English	30	12
PG	Mtech,Electronics And Communication Engineering, EMBEDDED SYSTEMS	24	B.TECH	English	6	0
PG	Mtech,Electrical And Electronics Engineering,ELECTRICAL MACHINES	24	B.TECH	English	6	0
PG	Mtech,Mechanical Engineering,COMPUTER INTEGRATED MANUFACTURING	24	B.TECH	English	6	1
PG	Mtech,Computer Science And Engineering,COMPUTER SCIENCE AND ENGINEERING	24	B.TECH	English	6	2
PG	Mtech,Civil Engineering, STRUCTURAL ENGINEERING	24	B.TECH	English	12	5
PG	Mtech,Biotechnology,Biot	24	B.TECH	English	6	1

	echnology and Biochemical Engineering					
Doctoral (Ph.D)	PhD or DPhil ,Mechanical Engineering,	72	M.TECH	English	14	0
Doctoral (Ph.D)	PhD or DPhil ,Computer Science And Engineering,	72	M.TECH	English	5	0

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	5				7				79			
Recruited	3	2	0	5	6	1	0	7	22	57	0	79
Yet to Recruit	0				0				0			
Sanctioned by the Management/Society or Other Authorized Bodies	5				7				79			
Recruited	3	2	0	5	6	1	0	7	22	57	0	79
Yet to Recruit	0				0				0			

Non-Teaching Staff				
	Male	**Female**	**Others**	**Total**
Sanctioned by the UGC /University State Government				39
Recruited	13	26	0	39
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				39
Recruited	13	26	0	39
Yet to Recruit				0

Technical Staff				
	Male	**Female**	**Others**	**Total**
Sanctioned by the UGC /University State Government				28
Recruited	19	9	0	28
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				28
Recruited	19	9	0	28
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.	3	2	0	6	1	0	2	5	0	19
M.Phil.	0	0	0	0	0	0	0	1	0	1
PG	0	0	0	0	0	0	22	56	0	78
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**
	0	0	0	0

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

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	224	6	0	0	230
	Female	122	0	0	0	122
	Others	0	0	0	0	0
PG	Male	2	0	0	0	2
	Female	5	0	0	0	5
	Others	0	0	0	0	0
Doctoral (Ph.D)	Male	0	0	0	0	0
	Female	0	0	0	0	0
	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	4	7	7	3
	Female	0	4	3	2
	Others	0	0	0	0
ST	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
OBC	Male	102	83	91	78
	Female	56	44	83	73
	Others	0	0	0	0
General	Male	126	121	160	123
	Female	81	82	93	58
	Others	0	0	0	0
Others	Male	0	0	1	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		369	341	438	337

Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	SBCE has a holistic multidisciplinary curriculum with a vision to equip the students with an overall knowledge on allied fields apart from their core subjects. For all B.Tech programs, honors and minors are available with the aim of giving advanced students more chances to study about a variety of engineering topics and facilitating their acquisition of interdisciplinary knowledge. Students in their last year of study have the option to select Open Elective subjects, which offer a chance to study interdisciplinary and transdisciplinary knowledge. In the second year, third, and final years, students participate in Project Based Learning through Mini Projects and Main Projects. Certain projects tackle

	comprehensive societal challenges. The M.Tech program includes audit courses as well as science, engineering, and soft skills including communication and management. Humanities, Professional Ethics, Constitution of India and Sustainable Engineering are an integral part of the engineering courses in the Institute. Credit based course on Environmental education is a part of the curriculum. The institute has a research council and Innovation Cell where B.Tech, M.Tech. as well as Ph.D students are involved under the supervision of faculties in making models and finding solutions to the pressing issues and challenges of society. Some of the work has also been filed for patents. The Institute organizes many interdisciplinary international conferences every year to promote a blending of different disciplines leading to the exchange of research ideas and knowledge on topics of overlapping domains.
2. Academic bank of credits (ABC):	The institution is proposing to drive for the autonomous status where the institution can register with the Academic Bank of credits. The institution has begun registering students for ABC for the current academic year in an effort to achieve the same goal. In addition, the institute makes sure that students take advantage of MOOCs and SWAYAM programs offered by top universities in the nation in order to improve their technical proficiency. In order to improve student skill competency and get them ready to be eligible for the benefit of Academic Bank credits, the institution will incorporate these pertinent online courses into applicable programs.
3. Skill development:	The institution’s skill development efforts resonate with that of National Skill Development Corporation evident through its enrichment of curriculum, electives, add-on courses etc. The institution has many functional Memorandum of Understandings (MoUs) with different businesses, professional bodies, and organizations to create the skills needed to bridge the gaps between industry and academics in the area of reskilling and upskilling. In addition, a range of practical training programs are arranged in association with various sectors to acquaint students with contemporary technologies. The Institute organizes various model-making competitions and exhibitions, workshops, and live projects with industry collaboration for the students on a regular basis to encourage vocational education. The soft

	skill development program is an integral part of curriculum. Essential Skill Development and Constitution of India are mandatory courses, which are compulsory for all students to get constitutional and citizenship values. Values and Ethics course is made mandatory for all to have ethical values inculcated. Different social programs and various NSS activities are organized by student chapters and clubs to imbibe the holistic human values needed for the overall character development of an individual. Mandatory Yoga class is organized for all students to assimilate the values needed to live a peaceful life. There are also various students' professional body chapters in the institute which provide platform to develop technical hard skills and soft skills through various co-curricular and extra-curricular activities .
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	With adequate integration of the Indian knowledge system, the college seeks to meet the needs of students from various social classes. The institution's clubs actively host sessions on creative art, culture, and literature in addition to a variety of other programs. Every year, technical festivals and arts competitions are held to highlight student potential. The National Service Scheme and Student Affairs Council (SAC) of the college organize celebrations of many religious holidays and festivals with the goal of fostering a diversity of languages and cultures. Students thus take an active part in many intercollegiate and state-level debating and dramatics competitions.
5. Focus on Outcome based education (OBE):	OBE was successfully implemented in 2015 onwards. SBCE is accredited with NBA during 2019-22 and further extended up to 2025. The organization carries out the OBE procedure in accordance with the National Educational Policy (NEP). The institution's programs are defined by its mission, program specific outcomes (PSOs), program outcomes (POs), and program educational objectives (PEOs). The organization makes every effort to inform all stakeholders about PEOs, POs, PSOs, and OBE parameters. In order to meet the POs and PSOs in the program, constant feedback is gathered from the stakeholders. Every course in the curriculum has clearly defined Course Outcomes (COs) that are connected to the PO and PSO sets. The COs are evaluated in accordance with Bloom's Taxonomy level, followed by the POs and PSOs, to guarantee

	the learning levels using COs, POs, and PSOs. The organization has a well-defined policy in place for measuring program and course outcomes. To increase the efficacy of its teaching-learning procedures, the institution redesigned the process from a teacher-centric to a learning-centric approach. Each course's pedagogical tools are defined in accordance with the COs. Tools that are suitable for evaluating each CO have been identified. Remedial actions are implemented to enhance each student's learning capacities in accordance with the assessment results. OBE compliance has helped to preserve academic standards and has made it easier for students and graduates to move around. In addition to imparting technical knowledge, the learning outcomes help students develop moral and social consciousness, which benefits society's social, economic, and environmental well-being.
6. Distance education/online education:	The College is an affiliated Institution with APJ Abdul Kalam Technological University. In order to enhance students' career preparedness and equip them for job-based learning, the college promotes and guarantees the enrollment of online courses through platforms such as MOOC and NPTEL. The organization grants users access to eBooks, Elsevier Science Direct, the IEEE Digital Library, and other online learning materials. Some of the notable infrastructure features at the institution capable of supporting online education are LCD projectors, cameras, podium stands, audio and video systems with the newest technology, and a wide range of educational materials accessible to both faculty members and students, including video lectures. Every program has state-of-the-art teaching tools including smart boards, cutting-edge software, and technologically advanced laboratories. The organization uses online learning materials to support blended learning.

Institutional Initiatives for Electoral Literacy

1. Whether Electoral Literacy Club (ELC) has been set up in the College?	No. From academic year 2024-25 onwards, the NSS unit of Sree Buddha College of Engineering, Pattoor will establish Electoral Literacy club in the college

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?	NO
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.	NIL
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.	NO
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.	No

Extended Profile

1 Students

1.1

Number of students year wise during the last five years

2022-23	2021-22	2020-21	2019-20	2018-19
1324	1353	1202	1414	1513

File Description	Document
Upload Supporting Document	View Document
Institutional data in prescribed format	View Document

2 Teachers

2.1

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

Response: 93

File Description	Document
Upload Supporting Document	View Document
Institutional data in prescribed format	View Document

2.2

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

2022-23	2021-22	2020-21	2019-20	2018-19
102	99	96	100	105

3 Institution

3.1

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

2022-23	2021-22	2020-21	2019-20	2018-19
165.56	117.24	146.93	196.52	217.45

File Description	Document
Upload Supporting Document	View Document

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curricular Planning and Implementation

1.1.1

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

Response:

Effective curriculum delivery at Sree Buddha College of Engineering (SBCE) is made possible by careful planning, ongoing feedback systems, frequent audits, and rigorous adherence to the academic calendar established by APJ Abdul Kalam Technological University (KTU).

SBCE aligns its academic activities with the calendar provided by KTU, meticulously planning classes, examinations, and assessments according to KTU's guidelines. Additionally, the college prepares its own academic calendar based on the KTU calendar, ensuring seamless coordination and execution throughout the academic year.

Before each academic year begins, SBCE engages in comprehensive curriculum planning involving faculty members, department councils, and stakeholders. This collaborative effort results in a detailed curriculum plan outlining course allocation, delivery methods, and intended outcomes for each semester. Importantly, the plan aligns with KTU's standards and reflects the visions of the college and its departments.

Continuous feedback mechanisms are integral to SBCE's curriculum delivery process. Regular internal audits overseen by the Internal Quality Assurance Cell (IQAC) evaluate curriculum delivery effectiveness and adherence to academic standards. These audits cover both academic and facilities aspects, ensuring holistic quality assurance and identifying areas for improvement.

External audits conducted by KTU further validate SBCE's academic processes and adherence to regulatory requirements, providing valuable feedback for enhancement.

SBCE employs various evaluation processes such as assignments, class tests, and series tests to assess student learning and comprehension. These assessments are designed to measure proficiency and understanding of course materials. Question papers for internal examinations are meticulously crafted to align with course outcomes and the principles of outcome-based education, ensuring assessments effectively measure students' competencies and skills.

Internal examinations are pivotal in evaluating students' comprehension and progress. Scheduled and conducted thoughtfully, these exams ensure fair assessment and identify areas where students may need additional support or enrichment. SBCE closely monitors portion completion status on a weekly basis, ensuring comprehensive syllabus coverage and effective teaching outcomes.

In addition to examinations, SBCE offers various initiatives such as invited lectures, workshops, and practical sessions to enhance the academic experience. These activities supplement the curriculum, providing students with interdisciplinary learning opportunities and facilitating skill development.

In summary, SBCE's approach to curriculum planning and delivery emphasizes meticulous planning, continuous feedback mechanisms, regular audits, and adherence to the academic calendar. Through these efforts, the institution ensures its curriculum remains effective, relevant, and responsive to the needs of students and stakeholders.

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

1.2 Academic Flexibility

1.2.1

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

Response: 120

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

Other Upload Files	
1	View Document

1.2.2

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

Response: 13.94

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

2022-23	2021-22	2020-21	2019-20	2018-19
183	238	250	143	135

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

1.3 Curriculum Enrichment

1.3.1

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

Response:

The Sree Buddha College of engineering relies on cardinal teaching of Lord Buddha for educating the whole generation imbued with real values of life, which ensures empowering students with professional ethics, sustainability, improving the overall personality to face future challenges. The concerns over cross-cutting issues, such as Professional Ethics, Gender, Human Values and Environment and Sustainability, are well reflected in its curriculum.

Embedding professional ethics and human values in various courses by introducing professional ethics and sustainable engineering as part of their curriculum. Professional ethics is further addressed through courses like Research Methodology, Research Ethics and Academic Writing, offered across programs in order to help streamline research and development with proper scientific temper.

As per the guidelines of UGC, AICTE and the University, the college consists of an Anti-ragging committee and student grievance cell to understand the problems faced by the students in all forms. Even each department has a disciplinary committee to understand and resolve the problems of students internally so as to make it more comfortable for the students. In case of any inconvenient incident, any student can lodge a complaint without disclosing his/her identity to the numbers which are displayed in

the various parts of the institution.

The college implies more value on empowering women. Women forum was introduced in the college for empowering women in all areas. General education regarding human rights was given with programs organized. Women hygiene was given more importance. With the team of women forum, they are good at dealing with the problems faced by students. The campus community comprises the majority of students and staff from the female category. The representation of female members is ensured in various committees by the college. Restrooms, incinerators in washrooms, facilities in health centers are provided separately for ladies. As per the guidelines of UGC, AICTE and the University, special privilege was given to female students on their attendance percentage (from 75 to72%) for the eligibility to write exams with concern to their difficulties during menstruation.

Keeping in mind the need to develop a value-based society, the college has given emphasis on offering courses that have components of human values. The subjects given them can develop ethics and human values in their profession. The NSS unit in the college also encourages the basic qualities of a human in helping people by organizing camps for social/community services, donating blood, providing meals for those in need, planting trees.

Professional ethics, environment and sustainability, human rights, gender equality and social justice are given prominence in the programs offered in the college.

The concerns over environment and sustainability are given importance in the curricula. Courses on Environmental Science and Management and Disaster Management are included in the curriculum. As part of developing environmental concerns Environment Day, Water Day were also celebrated and students participated in various forms.

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

1.3.2

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

Response: 100

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

Response: 1324

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

1.4 Feedback System

1.4.1

Institution obtains feedback on the academic performance and ambience of the institution from various stakeholders, such as Students, Teachers, Employers, Alumni etc. and action taken report on the feedback is made available on institutional website

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

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

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1

Enrolment percentage

Response: 62.38

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
364	336	412	319	285

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

2022-23	2021-22	2020-21	2019-20	2018-19
591	540	540	540	540

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

2.1.2

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

Response: 61.5

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

2022-23	2021-22	2020-21	2019-20	2018-19
80	76	76	67	46

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
121	110	110	110	110

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

2.2 Student Teacher Ratio

2.2.1

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

Response: 12.98

2.3 Teaching- Learning Process

2.3.1

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

Response:

College has a policy on student centric approach such as experiential learning, participative learning and problem solving.
The college adopted various student centric teaching learning methods for the academic excellence of the students. Some of the methods are explained below.

Experiential learning: Sree Buddha College of Engineering implemented the experiential learning in the teaching learning process from 2019 onwards. The aim behind this learning is that learners can acquire industrial knowledge through practical/experiments. Experiential learning focuses on hands-on experiences where learners actively engage with the subject matter. It is an educational approach that prioritizes hands- on, real-world experiences as the primary method for learning. Instead of simply listening to lectures or reading textbooks, learners actively engage in activities that allow them to directly experience and interact with the subject matter.

Participative Learning: The implementation of participative learning is to increase the pass percentage of the slow learners. Participative learning emphasizes collaboration, discussion, and active participation among learners. Enable learners to interact with peers and share ideas regardless of their physical location. Instead of passively receiving information from a teacher, students are actively involved in the learning process through discussions, group activities, problem-solving tasks, debates, and other interactive methods.

Problem-Solving Methodologies: Problem-solving methodologies involve presenting learners with real-world problems or challenges and guiding them through the process of finding solutions. ICT tools give support by providing access to boundless information, data analysis tools, and simulation software that learners can use to analyze problems and evaluate potential solutions.

By combining these student-centric methods with ICT tools, the teachers can create engaging and interactive learning environments that cater to diverse learning styles, foster critical thinking and creativity, and empower learners to take ownership of their learning journey.

All class rooms are equipped with e-learning resources in the college. The teachers are instructed to create online course modules using Google classroom, Moodle and other online platforms such as youtube. The learning process among the students are improved by association of library with the academic teaching process. The College library has subscribed to an online e-journal/e-book which can be accessed by students. These facilities help the students and the faculty to keep in pace with the recent developments in the subject through ICT tools through google classroom, faculty YouTube channels, accessibility to NPTEL. College is making use of the major ICT initiatives of Ministry of Education, Government of India such as NPTEL-SWAYAM, Swayamprabha, National Digital Library of India, Language lab, Technology enabled teaching -learning lab, Spoken Tutorial, Virtual Labs, E- governance, and Vidwan. Students are encouraged to register for MOOC courses under the SWAYAM platform and credit is given to the courses as per the regulations framed by the University. Faculty members utilize research databases such as Sciencedirect, IEEE, ASME, ASCE, Institution of Engineers India (IE-I), BRGoogle Scholar, Academia, ResearchGate, semantic, Eric Database, Scopus and Web of Science. The teaching learning process is mostly conducted by classroom teaching. Additionaly we use Moodle LMS and other platforms such as Google Classroom, Google Meet, and zoom.

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

2.4 Teacher Profile and Quality

2.4.1

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

Response: 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
102	99	96	100	105

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

2.4.2

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

Response: 26.49

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

2022-23	2021-22	2020-21	2019-20	2018-19
29	29	25	25	25

File Description	Document
List of faculties having Ph. D. / D.Sc. / D.Litt./ L.L.D along with particulars of degree awarding university, subject and the year of award per academic year.	View Document
Institution data in the prescribed format	View Document
Copies of Ph.D./D.Sc / D.Litt./ L.L.D awareded by UGC recognized universities	View Document

2.5 Evaluation Process and Reforms

2.5.1

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

Response:

Sree Buddha College of Engineering has developed a transparent mechanism for the assessment of student's performance. This mechanism is student-centric which allows the students to get the marks and easily interact with concerned teachers.

A transparent and robust internal and external assessment system is structured as follows:

The academic activities are followed accordingly with a calendar prepared by the affiliated university and further institute prepared its academic calendar marking the main events where the students can follow the activities promptly. All the activities about academics are available on the Institute website also. Thus, the students are made aware of the dates of their series exams, university exams, class and course committees, and assignments well in advance so that they can prepare accordingly. The internal and external assessment dates of laboratory courses, seminars, and projects are also displayed on the respective department notice boards.

SBCE constituted a vibrant examination cell to facilitate the internal assessment test and other exam-related activities. The cell is headed by the Principal, Chief Superintendent, and supported by an Additional Chief Superintendent. The cell also consisted, of representatives from every department. Internal assessments are conducted regularly throughout the semester. Typically, assessments are scheduled at mid-semester and toward the end of the semester. The internal exam timetable, hall, and seating arrangement are displayed on notice boards, to avoid confusion among students. Clearly defined rules are set by the head of the institution, with the help of an internal squad cell for strict monitoring of malpractice among students during the exam.

Guidelines and rubrics for project and seminar courses are also made available to the college by the University, to provide a clear and consistent set of criteria for assessment.

For theory assessment, questions are prepared by the concerned teachers, concerning the old question

papers, and books followed by them. A scrutiny committee is also formed at the department level to ensure the quality of question papers. Answer sheets are evaluated, and given to students for their concern. Class committee meetings are carried out at the HoD level, in the presence of students and subject teachers. A Centralized feedback system is administered at the institution level, for ensuring the quality of academic delivery.

A centralized attendance monitoring system is followed by the institution, and the same is made accessible to both parents and students, to ensure the transparency of the internal assessment process.

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

2.6 Student Performance and Learning Outcomes

2.6.1

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

Response:

Sree Buddha college of Engineering follows the Cos and POs as per the affiliated university curriculum as per the regulation 2019. Course coordinator plans the teaching plan based on the learning outcomes and program outcome which makes the teaching-learning process more fruitful as students are aware of the relevance of the topic in their pursuit of knowledge.

Based on the regulation 2015, the outcomes are developed by the institution itself. The POs are developed as per the NBA which was given by AICTE. The COs and PSOs were developed for the courses taught by the concerned departments. The following process was adopted for developing CO and PSO.

Step 1: Outcomes are complete declarative sentences that will clearly describe the student expectations such as knowledge, skills, and competencies acquired after completion of the course.

Step 2.The outcomes are assessed and evaluated frequently to identify the extent to which goals are accomplished.

Step 3.In order to measure the desired outcomes during the delivery of a program, course curriculum assessment methods are decided

Step 4.The emphasis on the holistic development of students in achieving the career objectives, SBCE has a practice of organizing programs like guest lectures, conferences, seminars and workshops.

The evaluation of learning process is done by the following pedagogic techniques

- Learning Instructions: Instructing the students during various stages of their Undergraduate/ post-graduate studies.
- Designing the learning unit: Although the Institute follows the syllabus prescribed by affiliating university, add on courses are designed for the curriculum enrichment and career developments.
- Delivery and achievement of the course: The student's academic, co-curricular, sports and outstanding performances along with the growing number of placements are the example of the program-specific outcomes.

2.6.1.1 Course outcomes(COs) and program outcomes(POs)

The curriculum of Kerala University (KU) was followed for all programs up to 2015 and afterwards by APJ Abdul Kalam Technological University (KTU). Currently all the batches in the program are running under KTU. The COs are specified for each course in the curriculum by the University. Appropriate changes were made to the COs to accomplish the required coverage of outcomes and their levels. The courses and the COs are aimed to fulfill the Program Outcomes (POs) and Program Specific Outcomes (PSOs) established for the program. These POs were adopted to establish correlation between course and the POs

Program outcomes (POs)

The following are the Programme outcomes (POs).

1. Engineering Knowledge

2. Problem Analysis

3. Design / Development of Solution

4. Conduct investigation of complex problems

5. Modern Tool Usage

6. The Engineering and Society

7. Environmental and Sustainability

8. Ethics

9. Individual and Team Work

10. Communication

11. Project Management and Finance

12. Life-long Learning

Program specific outcomes (PSOs)

The program specific outcomes of all the programs are uploaded in the website

2.6.1.2 Establish the correlation between the course and the program outcomes (POs)

Course outcomes are expected from the students at the end of the course. The same course codes and names as specified by the University are used in the tables.

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

2.6.2

Attainment of POs and COs are evaluated.

Explain with evidence in a maximum of 500 words

Response:

SBCE prescribed the assessment pattern, delineating internal assessment and end exams as the evaluation criteria. The primary methods utilized for assessing outcomes encompass internal assignments and semester-end examinations. The proficiency of students' knowledge and skills are assessed through a series of internal assessment tests and semester-end examinations. Moreover, viva-voce, thesis, and portfolios are additional methods considered for evaluating learning outcomes integrated into the syllabus. Following the definition of POs and COs, the achievement level of these outcomes are monitored and assessed at the program level, with targets set for their attainment.

Continuous evaluation data are collected from various sources such as performance in tests, assignments, semester-end examinations, project reports, and seminars. Indirect assessment data are acquired from course-end surveys, graduate exit surveys, alumni feedback, and employer feedback. The attainment level of all COs are measured and compared against the target levels. If the CO attainment falls short of the target level, reasons are identified, and an action plan for improving COs are devised and implemented in the subsequent academic year or whenever the course is offered

The assessment processes for evaluating COs and POs in this context are comprehensive, involving both direct and indirect methods.

2.6.2.1 Assessment Processes for Course Outcomes (COs)

- **Direct Assessment**:

- Internal assessment methods include series examinations, assignments, and other learning activities tailored to the course type.
- External assessment relies on the results of the University's semester-end examinations.
- The attainment level is calculated based on the percentage of students scoring above a certain threshold (x% marks):
  - 60% of students: Attainment score = 1 (low)
  - 70% of students: Attainment score = 2 (moderate)
  - 80% of students: Attainment score = 3 (high)
- The final attainment score for direct assessment is a weighted sum: 60% from internal assessments and 40% from external assessments.

- **Indirect Assessment**:

  - A course exit survey is conducted to gather students' feedback at the end of each semester.
  - The attainment level is similarly measured by the percentage of students giving favorable responses:
    - 60% of students: Attainment score = 1 (low)
    - 70% of students: Attainment score = 2 (medium)
    - 80% of students: Attainment score = 3 (high)
  - The overall CO attainment score combines 80% from direct assessment and 20% from indirect assessment.

2.6.2.2 Attainment of Program Outcomes (POs) and Program Specific Outcomes (PSOs)

- **Part-I (Direct Assessment)**:

  - Average attainments of POs and PSOs are calculated for each course.
  - This involves mapping course outcomes with POs/PSOs and recording grades from both internal and external assessments.

- **Part-II (Indirect Assessment)**:

  - Program Exit Surveys, Alumni Surveys, Employer Surveys, and participation in co-curricular and extracurricular activities contribute to this assessment.

- **Part-III**:

  - Consolidation of attainment scores across all courses.

- **Part-IV**:

  - Final attainment of POs and PSOs is determined by combining 80% of the direct

assessment score with 20% of the indirect assessment score.

- **Part-V (Stakeholder Interface)**:
    - The program attainment is shared with stakeholders, showcasing continuous improvement over time.

This structured approach ensures that both direct academic performance and indirect feedback contribute to the evaluation of student outcomes, fostering continuous improvement in the educational program.

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

2.6.3

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

Response: 82.29

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

2022-23	2021-22	2020-21	2019-20	2018-19
199	200	305	325	346

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

2022-23	2021-22	2020-21	2019-20	2018-19
302	270	359	367	373

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

2.7 Student Satisfaction Survey

2.7.1

Online student satisfaction survey regarding teaching learning process

Response:

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

Criterion 3 - Research, Innovations and Extension

3.1 Resource Mobilization for Research

3.1.1

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

Response: 67.75

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

2022-23	2021-22	2020-21	2019-20	2018-19
19.63	27.91	10.41	6.50	3.30

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

3.2 Innovation Ecosystem

3.2.1

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

Response:

The Institution has to create an ecosystem for innovation including an incubation centre and other initiatives for the creation and transfer of knowledge. The institution shall conduct workshops/seminars on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices. Awards for innovation won by institutions /teachers/research scholars/students, start-ups incubated on-campus are explicitly commended.

Different initiatives taken by institute in this direction are listed below:

Sree Buddha College of Engineering was designated as an IEDC/Startup Boot camp by the Kerala Startup Mission in August 2015, aiming to instill an entrepreneurial spirit among students. This initiative provides students with dedicated space equipped with computers, internet access, and discussion areas for honing their technical skills beyond regular college hours. Additionally, the college offers the Sree

Buddha Incubation Facility for pre-incubated start-ups to develop their products.

The Entrepreneurship Development Center facilitates various activities such as idea pitching contests and interactions with entrepreneurs, fostering industry-academia collaboration and nurturing innovative ideas. This effort has led to students excelling in state-level platforms over the years.

Over the past five years, the Institution's Innovation Council (IIC) at Sree Buddha College of Engineering, in collaboration with the Innovation Entrepreneurship Development Centre (IEDC), has organized a multitude of activities including webinars, workshops, training sessions, Fab lab visits, hackathons, quizzes, competitions, and idea pitching sessions. These activities witnessed

substantial participation from both students and faculty members, laying a robust foundation for innovation and entrepreneurship within the institution.

These initiatives have yielded tangible outcomes, with students participating in various idea grant competitions, being selected at district levels, and shortlisted for final presentations at state levels. Several student ideas have also been earmarked for startup ventures, while forging strong relationships with experts in the entrepreneurship ecosystem.

The Intellectual Property Rights (IPR) Cell at SBCE plays a pivotal role in fostering innovation, entrepreneurship, and knowledge dissemination. Through guidance and support, the IPR Cell nurtures creativity among students and faculty, resulting in the development of novel ideas and technologies. Its assistance in idea creation contributes significantly to patent publications, showcasing the institution's intellectual capital and enhancing its reputation as an innovative hub. Patent publications also facilitate knowledge transfer, protect innovative ideas, and encourage further investment in research and development, thus driving economic growth.

Participating in the Atal Ranking of Institutions on Innovation Achievements since 2021 demonstrates SBCE's commitment to fostering innovation and knowledge transfer. This initiative serves as a benchmarking platform, encouraging colleges to improve their innovation ecosystems and share best practices, ultimately promoting collaborative innovation and knowledge dissemination across the educational landscape.

In conclusion, Sree Buddha College of Engineering has successfully established a vibrant ecosystem for innovation and entrepreneurship through its IEDC, IIC, and IPR Cell initiatives. These efforts have not only empowered students to excel in various competitions but also contributed to the institution's reputation as a center of innovation and knowledge transfer. By actively participating in initiatives like the Atal Ranking, SBCE continues to drive the culture of innovation forward, benefiting both the institution and the broader community.

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

3.2.2

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

Response: 262

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

2022-23	2021-22	2020-21	2019-20	2018-19
90	59	68	30	15

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

3.3 Research Publications and Awards

3.3.1

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

Response: 0.62

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

2022-23	2021-22	2020-21	2019-20	2018-19
8	15	7	16	12

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

3.3.2

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

Response: 3.74

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

2022-23	2021-22	2020-21	2019-20	2018-19
137	59	50	89	13

File Description	Document
List of chapter/book along with the links redirecting to the source website	View Document
Institutional data in the prescribed format	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 Extension Activities

3.4.1

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

Response:

Sree Buddha College of Engineering has a vision of empowering the rural people with modern technology. SBCE has initiated several extension programmes for the local people and society. Being situated in rural area of Kerala, the institution organizes various programmes to raise awareness among students about different social concerns and promoting their overall development. These initiatives, undertaken by different organisations and agencies, have left a lasting impact on both the individuals involved and the communities they serve.

The cells, committees and clubs in association with various government agencies organizes programmes on support to the local community such as live water quality testing, distribution of saplings, construction of houses, computer literacy, food processing for self-help groups etc. These programs and hands-on training not only raised awareness about environmental conservation but also encouraged students to take concrete actions to address environmental challenges. Societal clubs organised a food distribution event, highlighting the issue of food insecurity and prompting students to engage in initiatives to combat hunger within their communities. The institute organizes various competitions for the school students. The nearby government school students are invited for Inter-college activities such as the Best Engineer’s Contest and online design competitions have provided students with opportunities to showcase their talents while also raising awareness about pressing social issues. These competitions have encouraged innovation and creativity among students, fostering a sense of camaraderie and collaboration across institutions. In addition to these events, several organisations have focused on specific social issues through targeted initiatives. For instance, the Amogha Foundation organised a teaching assistant programme for mentally retarded students, emphasising the importance of inclusivity and support for marginalised communities. The socio emotional development activities such as positive parenting and gender sensitisation were regularly organized by the different clubs of SBCE. Similarly, Sree Buddha College of Engineering

initiated “Blooming Blossoms," an interaction on positive parenting, recognising the crucial role of family dynamics in shaping an individual's development. The National Service Scheme (NSS) has been instrumental in organising a wide array of community and campus activities aimed at fostering social responsibility and civic engagement among students. From blood donation camps to road safety awareness campaigns, NSS units have actively engaged students in initiatives that address critical societal needs while also promoting personal growth and leadership development. These activities have not only sensitised students to social issues but have also had tangible impacts on the communities they serve. Swatch Bharath initiatives such as community clean-ups, arogya initiative like health camps, and educational workshops, students have contributed to improving the overall well-being of their neighbourhoods while also developing essential life skills and values such as empathy, teamwork, and leadership.

The extension activities carried out in neighbourhood communities over the last five years have played a crucial role in sensitising students to social issues, fostering their holistic development, and making a positive impact on both individuals and communities. By providing students with opportunities for hands-on learning and community engagement, these initiatives have empowered them to become active agents

of change and contribute meaningfully to society.

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

3.4.2

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

Response:

Through its extension programs in the local community, the institution raises students' awareness of social issues and promotes their holistic development. The NSS Unit and numerous departmental student clubs are actively promoting a range of extension initiatives. Numerous initiatives are implemented, including road safety, AIDS awareness, blood donation camps, health check-up camps, women education, environmental awareness, cleanliness, planting trees, and the elimination of plastic. Students that participate in extension programs become more aware of societal issues and are inspired to offer solutions. Students' personalities grow holistically as a result.

The following are only a few of the honours and recognitions received:

- Students from the institution conducted a road safety awareness class at neighbouring schools, providing guidance to the students. The institution received an appreciation letter for these efforts.
- Appreciation award from the superintendent of Alappuzha Medical College for conducting blood donation camp.

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

3.4.3

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

Response: 98

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

2022-23	2021-22	2020-21	2019-20	2018-19
30	23	11	13	21

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	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

3.5 Collaboration

3.5.1

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

Response: 123

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	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,

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

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

Response:

Response:

Infrastructure and Physical Facilities

The institution spans an area of 29.59 Acres, featuring five distinct blocks: Mahatma Gandhi Block, Sarvepalli Radhakrishnan Block, Jawaharlal Nehru Block, Homi J Bhabha Block, and M Visvesvaraya Block. Among these, three are standalone blocks, housing the Department of Civil Engineering (Jawaharlal Nehru Block), Department of Computer Science and Engineering (Homi J Bhabha Block), and the library (Sarvepalli Radhakrishnan Block). The remaining two blocks are utilized on a sharing basis. The Mahatma Gandhi Block is shared by Department of Biotechnology and Biochemical Engineering, Food technology, and Electronics and communication engineering. Similarly, the M Visvesvaraya Block is shared by Departments of Mechanical Engineering, Electrical and Electronics Engineering and Computer Science and Engineering (Artificial Intelligence and Machine Learning) respectively. These blocks collectively provide essential infrastructure crucial for facilitating the teaching-learning process, comprising Classrooms, Seminar halls, Laboratories, Workshops, and Research space. Every department is equipped with ICT-enabled classrooms and a dedicated departmental library. Name and sign boards are placed for the easy identification of various locations.

Classrooms and ICT Facilities

The institution has well-furnished, well-ventilated, and spacious classrooms tailored for theory classes. Each classroom is equipped with an LCD projector, Wi-Fi-enabled internet connectivity. Moreover, a public addressing system ensures clear dissemination of announcements from reception and the principal's office. Surveillance cameras are installed in classrooms for security and monitoring purposes.

The institute houses a centrally located conference hall in the Sarvepalli Radhakrishnan Block. Fully air-conditioned with a seating capacity of 200, this hall is equipped with LCD projectors, whiteboards, and a public addressing system, serving as the primary venue for conferences, workshops, conclaves, and FDPs. Additionally, separate seminar halls are available in individual departments, accommodating an average of 70 attendees. With approximately 472 computers,

regularly updated to meet computational demands, and a campus-wide Wi-Fi network boosting speed of 400 Mbps, the institution ensures robust computing facilities.

Laboratories Facilities

Laboratories across every department are meticulously equipped and maintained, facilitating curriculum-oriented practice sessions and projects. For safety, necessary instructions and safety rules are displayed in Laboratories

Sports Facilities

The sports facilities include a Football Court, Cricket field, Kabaddi court, Basketball court, Indoor court, and Volley ball courts. Coaching is provided for various games under the supervision of a permanent, experienced Physical Education director. The college sports council, comprising the President (Principal), nominated teachers, college sports secretary, and team captains, oversees all sports and games activities.

Cultural Activities

For cultural events, the college hosts activities in the Ashoka Auditorium, including Techfest, Arts Day celebration, and various NSS programs and departmental activities.

Gymnasium

Furthermore, a state-of-the-art gymnasium with a full-time trainer caters to the fitness needs of both faculty and students, equipped with modern fitness equipment.

Yoga

The institute has dedicated space for yoga centre for facilitating yoga practices. Art of living courses on yoga and meditation are organized for the faculty members and students. The Institute conducts motivational lectures on positive attitude, leadership qualities, stress management etc

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

4.1.2

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

Response: 17.65

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
33.55	19.60	24.38	16.67	54.73

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

4.2 Library as a Learning Resource

4.2.1

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

Response:

Response:

Central Library is located almost in the geographical centre of the campus; the College Library has an area of 1500 Sq.Mts spread over three floors, which can accommodate 350 readers at a time. The ground floor is an open area with reader tables and a popular browsing area and is used for stacking the main book collection. The other sections on this floor are the circulation counter, offices of Senior Librarian, Book Acquisition and Technical Processing Division and OPAC (Online Public Access Catalogue).

The first floor is occupied by the Reserve and Reference Collection with a reading area for members of faculty and students. There is also a Digital Library area (IT zone) equipped with 30 PCs where one can access online materials , databases and e-resources to which the library has a subscription. The second floor is occupied by bound volumes of journals with a space for reading. Library has a very rich collection of materials consisting of books, journals, CDs, Standards and e-resources.

The central library of Sree Buddha College of Engineering has a rich collection of materials

consisting of books, journals, and e-resources. The total collection is 34,812 volumes covering all disciplines of engineering. The library currently subscribes to over 10665 titles of e-journals and e-books included in the Web of Science. The faculty/students/research scholars can access the online and offline electronic resources from the Digital Library section. IP-enabled access is provided to NPTEL Videos, and e-journals and e-books subscribed through different consortiums like IEI-SPRINGER, Science Direct, DELNET, and NDL.

All the library activities are computerized, which include barcoded ID cards and separate online Public Access Catalogue (OPAC) terminals for searching books in the library, and Wi-Fi and other tools to provide access to the library collection.

Library services:

All the library activities are fully computerized, including bar-coded ID cards and separate On-line Public Access Catalogue (OPAC) terminals for searching books in the library. Web-OPAC provides a continuous library access to the students and faculty members of the Institute. Display Boards are provided for the students to display posters of different conferences and trainings, and College and KTU circulars. There is also a section where photocopy facilities are available for library users.

Name of ILMS (Integrated Library Management System) software: Library Ex+

This is the complete library management and automation solution designed for small to large academic libraries. The software automates the full range of library functions including cataloguing, circulation, public access and acquisitions, inter-library book transfer, and facilitates book reservation. One can use the software to keep track of all types of books, magazines, videos, CDs and other media. For each of the above items, one can track title, author, subject, publisher, copyright year, date received, cost, image and value. The software also supports most barcode readers and can automatically generate and print barcodes.

Nature of automation: Partially Automated

Version: 1.0.156

Year of automation: 2014

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

4.3 IT Infrastructure

4.3.1

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

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

Response:

Response:

Institution is having state-of-the-art IT infrastructure which is being continuously upgraded according to the advancement in technology and demands of the teaching learning process. In order to strengthen the IT infrastructure, the institute has been providing the best quality computers, sufficient internet bandwidth, CCTV, licensed & open source software, Wi-Fi devices, UPS, ERP software.

College has the latest IT Infrastructure to support the teaching & learning processes. The campus has been enabled with Internet bandwidth services on 24X7 support, providing anytime anywhere access to knowledge and learning resources. Extensive use of ICT resources including development and use of computer-aided teaching/ learning materials by its staff and students. The college campus and hostel is Wi-Fi enabled with an Internet broadband speed of 100Mbps ILL1.4 from 30/4/2019 and another line of 300Mbps from 2021.

The Institute regularly updates its labs, Internet resources, and services to meet the demands of the academic and research endeavours.

LAN Facility:

The campus is facilitated with a LAN having a broadband speed of overall 200Mbps.

ERP:

Well established ERP system for staff members exists in the institute. Ezygo app, the ERP system is designed as a complete solution for higher educational institutes.

It provides the following services.

Lesson plan and course coverage reports, prepare lesson plans, mark attendance, attach topics and delivery methods, download Reports. CO-PO & Blooms Taxonomy Mapping. Map each topic to CO and activity questions to COs and Blooms Taxonomy. CO-PO mapping made easy Course Exit and Program Exit Surveys.

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

4.3.2

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

Response: 2.81

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

Response: 472

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

4.4 Maintenance of Campus Infrastructure

4.4.1

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

Response: 26.58

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

2022-23	2021-22	2020-21	2019-20	2018-19
43.73	34.74	33.45	42.48	69.86

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

Criterion 5 - Student Support and Progression

5.1 Student Support

5.1.1

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

Response: 38.67

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

2022-23	2021-22	2020-21	2019-20	2018-19
724	572	532	434	370

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

5.1.2

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

1. ***Soft skills***
2. ***Language and communication skills***
3. ***Life skills (Yoga, physical fitness, health and hygiene)***
4. ***ICT/computing skills***

Response: A. All of the above

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

5.1.3

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

Response: 57.42

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

2022-23	2021-22	2020-21	2019-20	2018-19
1078	879	855	687	409

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

5.1.4

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

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

Response: A. All of the above

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 motioning the activities and number of grievances redressed to prove timely redressal of the grievances	View Document
Provide Links for any other relevant document to support the claim (if any)	View Document

5.2 Student Progression

5.2.1

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

Response: 41.55

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

2022-23	2021-22	2020-21	2019-20	2018-19
113	129	179	112	111

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

2022-23	2021-22	2020-21	2019-20	2018-19
250	202	325	316	457

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

Response: 4.3

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

2022-23	2021-22	2020-21	2019-20	2018-19
5	19	8	1	6

File Description	Document
List of students qualified year wise under each category and links to Qualifying Certificates of the students taking the examination	View Document
Institutional data in the prescribed format	View Document
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 (award for a team event should be counted as one) during the last five years

Response: 58

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

2022-23	2021-22	2020-21	2019-20	2018-19
32	20	0	6	0

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

5.3.2

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

Response: 28

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

2022-23	2021-22	2020-21	2019-20	2018-19
71	63	1	3	2

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

5.4 Alumni Engagement

5.4.1

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

Response:

Alumni Association of SBCE

Sree Buddha College of Engineering (SBCE), located in Pattoor, Alappuzha, Kerala, has a robust and engaged alumni community that significantly contributes to the institution's development and growth. The alumni of SBCE play a crucial role in strengthening the academic and non-academic aspects of the college through their diverse contributions.

Academic Support:

The alumni of SBCE actively participate in the academic activities of the college. They frequently visit the campus to deliver guest lectures, workshops, and seminars, sharing their industry experiences and insights with the current students. This helps to bridge the gap between academia and industry, providing the students with valuable practical knowledge and exposure.

Mentorship and Career Guidance:

SBCE's alumni network serves as a valuable resource for current students, offering mentorship and career guidance. Alumni often return to the campus to engage with students, providing them with career counseling, internship opportunities, and assistance in securing placements. They also help in organizing industry visits, job fairs, and networking events, enabling students to explore diverse career paths and establish connections with potential employers.

Financial Contributions:

The alumni of SBCE have demonstrated a strong commitment to the institution's growth and development by contributing financially. Many alumni have established endowment funds and awards to support deserving students, ensuring that quality education remains accessible to all. These financial contributions have helped the college to upgrade its infrastructure, acquire state-of-the-art equipment, and enhance the overall learning environment.

Entrepreneurial Ecosystem:

SBCE's alumni have also made significant contributions to the entrepreneurial ecosystem within the institution. Successful alumni entrepreneurs often collaborate with the college to provide funding, mentorship, and incubation support for student startups. They share their experiences, offer guidance, and help students navigate the challenges of entrepreneurship, fostering a vibrant entrepreneurial culture on campus.

Alumni Engagement and Networking:
The college actively engages its alumni through various events and initiatives, such as annual alumni meet, homecoming celebrations, and networking forums. These platforms allow alumni to reconnect with their alma mater, network with fellow graduates, and contribute to the college's growth and development. The college also maintains a robust alumni database, facilitating effective communication and collaboration between the institution and its alumni.

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

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1

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

Response:

Response: Yes

SBCE has an articulated vision and mission based on which the framework for administrative and academic governing structures has been arrived at to achieve excellence in academics and research. Sree Buddha College of Engineering is recognized by government statutory bodies such as AICTE, UGC, and APJ Abdul Kalam Technological University. SBCE has been accredited by the NBA and NAAC. AICTE and the NBA. The Performance of SBCE is recognized with ARIIA and IIC rankings for excellence in Innovation and Entrepreneurship development.

- SBCE is also recognized by NIRF and ARIIA regional-level rankings.
- SBCE received the AICTE letter of approval in 2002 and is continuing.
- The Department of Civil Engineering, The Department of Computer Science and Engineering, the Department of Biotechnology and Biochemical Engineering, and the Department of Mechanical Engineering were accredited by NBA for the B. Tech course in 2019-20 and were reaccredited in 2022-23 and are valid up to 2024-25.
- ARIIA ranking - SBCE is recognized in the band ‘Performer’ under the category "Colleges/ Institutes (Private / Self-Financed) (Technical)" in the Atal Ranking of Institutions on Innovation Achievement (ARIIA), 2021.
- NIRF – Sree Buddha College is participating in the NIRF ranking from 2021 and continuing till 2022-23.
- Kerala Institutional Ranking Framework KIRF - SBCE is participating in the KIRF ranking from 2023 onwards.
- SBCE ensures the annual update of AISHE data on the MHRD portal and the timely submission of documents for statutory bodies like UGC, AICTE, etc.
- SBCE has been awarded autonomous status by AICTE.
- SBCE follows a decentralization and participative management approach in all its decision-making processes.

- SBCE has adopted the hybrid combination of a Top-down approach for the achievement of institutional goals and associated pertinent strategies on one hand and a bottom-up approach of empowering the faculties/ departments to work in unison to accomplish the stated objectives. The deeper and widespread proactive involvement of Management, Principal, Faculties, HODs, Departments, other staff etc is depicted in the organogram to substantiate the presence of attributes of vision and mission in both administrative and academic governance of the college.

  SBCE has the following statutory and non-statutory bodies for effective leadership.

  Statutory bodies

  (For administrative and policy Governance)

- Governing Body (Management Council)
- Finance committee
- Academic Council
- Research Council
- HoDs Council
- Exam cell
- Board of Studies
- Internal Quality Assurance Cell (IQAC)
- Non-Statutory bodies
- Internal Complaint Committee
- Admission Committee
- Anti-Ragging Committee
- Ethics Committee
- Library Committee
- Continuing Education Cell
- Discipline Committee
- Woman’s Cell
- Minority committee

- Alumni Association
- Student Grievances and Redressal Committee
- Placement Cell
- Teaching staff association
- Media and website committee
- Strategic Planning Committee
- Planning & Monitoring committee
- Project Monitoring committee etc.
- SBCE has initiated significant steps to implement NEP- 2020 in its program:
- The NEP Committee has been formed.
- Master training series to orient HoDs, faculty members, etc.
- Focus on Outcome Based Education (OBE):

  SBCE in line with the strategic plan and long-term vision has made sustainable growth from its inception in all spheres of its operations involving academics, research, admissions, collaborations, consultancy, IQAC, and other perspectives.

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

6.2 Strategy Development and Deployment

6.2.1

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

Response:

SBCE has established all the statutory bodies, including the Management Council, Academic Council, Finance Committee, Research Council, Board of Studies, etc. The Exam Cell and other bodies such as IQAC, Internal Complaint Cell (ICC), Gender Sensitization Committee, Ethics Committee, Minority Committee, Library Committee, Anti-ragging Committee, Placement Cell, IPR cell, and Admission Committee have been constituted.

These bodies' effectiveness is evident through meeting minutes and the implementation of their resolutions.

Regular meetings are conducted to consider various agenda items and issues to make decisions. Appropriate follow-up actions are taken by convenors and members of committees.

The recommendations of the Academic Council and finance committee are placed before the Management Council for final decisions.

Further different policies and guidelines for different committees have been framed including IPR, Consultancy, Research, ethics, discipline, and guidelines for ICC, Grievance Redressal, anti-ragging, Minority cell, etc. Examination and valuation-related guidelines are provided by the APJ Abdul Kalam Kerala Technological University (KTU).

Student-related committees include the Student Affairs Council (SAC), Students Grievance and Redressal Committee, Arts Committee, etc.

The organizational structure of SBCE including a management council, administrative and other functionaries of various bodies are in place, and approved service rules, procedures, as well as grievances are implemented.

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

6.2.2

Institution implements e-governance in its operations

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

Response: A. All of the above

File Description	Document
Screen shots of user interfaces of each module reflecting the name of the HEI	View Document
Institutional expenditure statements for the budget heads of e-governance implementation ERP Document	View Document
Annual e-governance report approved by the Governing Council/ Board of Management/ Syndicate Policy document on e-governance	View Document
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 System for teaching and non-teaching staff

SBCE strictly follows the UGC Regulations on Minimum Qualifications for Appointment of Teachers and other Academic Staff in Universities and Colleges and Measures for the Maintenance of Standards in Higher Education-2010" (Regulation No. F.3-1/2009 dated June 30, 2010), together with all amendments made therein from time to time, for its teaching and non-teaching staff.

The performance of each employee is assessed annually after the completion of one year of service. The objective is not only to objectively evaluate the performance as per established norms but also to identify potential aspects for improvement that can eventually lead to further progress and growth of the employee.

The salient features of the performance appraisal system are as follows:

Teaching Faculty

a) The performance of each faculty member is assessed according to the Annual Self Appraisal System.

b) The institute undertakes a wide range of activities besides academics, for which faculty members are assigned additional duties and responsibilities.

c) The Institute accords appropriate weightage for these contributions in their overall assessment. The teacher's performance is appraised through his/her implementation of innovative methodologies in

classroom lectures, seminars, tutorials, course delivery, question paper setting and evaluation, updating of materials, etc. Besides, student feedback and pass percentage of the course are also considered. The performance of the faculty is evaluated based on professional contribution to academics, contribution to short-term training courses, performing invigilation duties, and contribution to College administrative bodies such as the college academic council, Research council, the strategic planning committee, NBA, NAAC, ARIIA, etc.

Also, their research interests are evaluated based on their participation in conferences, workshops, publications in Scopus-indexed journals, book publications, sponsored projects consultancy, research supervision, awards, honors, fellowships, etc.

d) The above-set performance appraisal report is filled by employees in a given prescribed proforma which includes all the above sets related to points and sub-points. Filled in the prescribed format is verified by HOD to assess the attitudinal/behavioral/professional aspects of the faculty concerned. Then it is reviewed by the principal and Management.

Non-Teaching Staff

a) All non-teaching staff are also assessed through annual confidential reports. A few strategies are observed in appraising non-teaching staff's performance. This includes the technical contribution of individuals such as subject knowledge, awareness, productivity, quality, innovation, willingness to learn, diligence, etc. Besides they also assess the behavioral aspects like group behavior, acceptability, punctuality, etc.

b) The Annual Confidential Report and the Performance Appraisal System have significantly helped in the evaluation of the performance of employees, in motivating them, analyzing their strengths and weaknesses, and ensuring better performance.

Welfare measures for the benefit of the staff members :

a) Sbce encourages teaching faculty to participate in FDPs and MDPs to enhance their teaching and learning capabilities.

b) SBCE management provides welfare measures like Group medical insurance, Provident fund, Half pay leaves, financial assistance for attending conferences, FDP, Maternity leave with pay, etc.

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

6.3.2

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

Response: 35.66

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
39	39	33	53	15

File Description	Document
Policy document on providing financial support to teachers	View Document
Institutional data in the prescribed format	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 / workshop s 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 teaching and non-teaching staff participating in Faculty development Programmes (FDP), Management Development Programmes (MDPs) professional development /administrative training programs during the last five years

Response: 53.06

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

2022-23	2021-22	2020-21	2019-20	2018-19
65	56	90	65	62

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

2022-23	2021-22	2020-21	2019-20	2018-19
30	30	25	25	25

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	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

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

Response:

SBCE maintains & follows a well-planned process for the mobilization of funds and resources. The process involves the Principal, Department Heads, Administrative officer, and Accounts office. The institute has designed some specific rules for fund usage and Resource utilization.

Mobilization of Funds

- The student Tuition fee is the major source of income for the institute.
- Fees charged are as per the university and government norms for students of various courses.
- Various government agencies like KTU, KSCSTE, and AICTE sponsored events like seminars, FDPs, and workshops on sanction of applications from faculties.
- Sponsorships are also sought from corporations for cultural events and fests.

Resource Mobilization Policy and Procedure

- Before the financial year begins, the Principal and Heads of Departments prepare the college budget.
- The institutional budget includes recurring expenses such as salary, electricity and internet charges, stationery & other maintenance costs.
- It includes planned expenses such as lab equipment purchases, furniture, and other development Expenses.
- The budget is scrutinized and approved by the management.
- The principal and accounts section monitors whether expenses are exceeding budget provisions.
- Regular internal audits from the Chartered Accountant make sure that the mobilization of the resources is being done properly.

Utilization of Funds

- Management monitors the optimum utilization of funds for various recurring and non-recurring expenses
- The department or the office seeks quotations from vendors for the purchase of equipment, computers, books, etc.
- The quotations are scrutinized by the HoD and based on the recommendations from the department and Principal; a final decision is made by Management based on parameters like pricing, quality, terms of service, etc.

Institutional Strategy for mobilization of funds and optimal utilization of resources

- Statutory auditors are also appointed who certify the financial statements in every financial year.
- The grants received by the college are also audited by certified auditors.
- Care is taken for optimal utilization of resources
- The college aims to promote research, development, consultancy, and other activities, involving the faculty at various levels.
- The optimal utilization is ensured through encouraging innovative teaching-learning practices.
- The available physical infrastructure is optimally utilized beyond regular college hours, to

conduct remedial classes, co-curricular activities/extra-curricular activities, and parent-teacher meetings.

- The library also functions beyond college hours for the benefit of students, faculty, and alumni.
- The college infrastructure is utilized as an examination center for Government examinations/University Examinations and also as entrance examination centers like NEET, JEE, GATE, etc.

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

6.5 Internal Quality Assurance System

6.5.1

Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes. It reviews teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals and records the incremental improvement in various activities

Response:

The Internal Quality Assurance Cell (IQAC) of SBCE encompasses all aspects of the Institute's functioning. The IQAC has immensely contributed to implementing quality assurance strategies and processes at all levels. The Institute IQAC regularly meets twice a year.

The IQAC at SBCE was constituted in 2008. Since then, it has been performing the following tasks regularly:

1. Improvement in quality of teaching and research by regular inputs to all concerned based on feedback from students.

2. Providing inputs for best practices in administration for efficient resource utilization and better services to students and staff.

3. Providing inputs for Academic and Administrative Audits and suggesting actions to DAB to be implemented in weak areas.

4. Research sharing and networking with other institutions in India and abroad

The Institute IQAC prepares, evaluates, and recommends the following for approval by the relevant Institute and Govt. statutory authorities:

(a) Annual Quality Assurance Report (AQAR)

(b) Self-Study Reports of various accreditation bodies (ISO 9001, UGC 12b, NAAC, NIRF, NBA)

(c) Performance Based Appraisal System

(d) Stakeholder feedback

(e) Action Taken Reports

(f) New Programmes as per National Missions and Govt. Policies

ACADEMIC AUDIT:

The college conducts an academic audit of each department every year through IQAC to increase and maintain the quality of education. The academic Audit Committee is set up for this purpose. The audit committee visits each department and the course files, as well as lab files, are checked properly. Missing data are noted for corrective actions. The IQAC coordinator of the department suggests the programs be coordinated at the start of an academic year for the better performance of each department. At the end of the academic session, the IQAC coordinator collects details on publication, extension activity, collaboration, innovative and best practices, assignments, ICT-based activity, students' competitions, seminars, FDPs, STTPs, and workshops organized. Due to the implementation of such academic audits, it is found that all departments and committees have been constantly improving their curricular, co-curricular, and extracurricular performances.

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

6.5.2

Quality assurance initiatives of the institution include:

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

Response: A. Any 4 or more of the above

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

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1

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

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

Response:

Response:

At SBCE, students of both the gender have equal opportunities to develop to their optimum potential. Some of the efforts made by the institute to promote women empowerment are highlighted below:

The annual gender equity and sensitization action plan is prepared in advance that includes the curricular and extra-curricular initiatives which are planned and to be executed.

The institute arranges special programs, especially during International Women's Day, National women empowerment day etc, wherein female students and staff take part in large numbers. During these programs, experts are invited to address among the female students and staff about various relevant issues concerning women. Institution had given equal importance in recruitment process and the representation of the female employees is more than the male employees. SBCE established various committee to empower the women activities by conducting events and other programs with equity concept.

Female staff are actively involved in coordinating the woman cultural activities, provide counselling to the girls through effective mentor mentee system and built-up confidence among the students, motivate them in participating sports, cultural events and other activities.

The primary aim of these awareness campaigns is to promote overall wellbeing of female students residing in the hostel. These campaigns focus on both physical and mental well-being of students. The institute encourages female students to actively participate in all the co-curricular and extracurricular activities arranged within and outside the campus. Every year large number of female students take part in college Cultural Fest. Also, female students actively participate in inter-department /& inter-collegiate sports competitions arranged by the institute / University.

I. Infrastructure & Facilities for women on campus

- Safety & Security
- Common Rooms
- Counselling
- Day care centres for employee's children.

II. Women Cell activities:

- Organizing Women Health programs regularly for women staff and girls' students.
- Celebration of International Women's Day with zeal and enthusiasm.
- Guest lectures to empower women.
- Various women- related themes and topics taken up for discussion and debates during cultural events

III. Administrative structure for Women safety at SBCE

- Discipline committee in campus to ensure campus discipline with Girl representative from each class and section
- Women Grievance and empowerment cell to resolve the personnel problems facing if any College rules and regulations
- Internal Complaint Committee & Grievance cell
- Grievance committee
- Students Redressal Committee.
- Teacher guardian / Faculty advisor system

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

7.1.2

The Institution has facilities and initiatives for

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

Response: A. 4 or All of the above

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

7.1.3

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

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

Response: A. All of the above

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

7.1.4

Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and Sensitization of

students and employees to the constitutional obligations: values, rights, duties and responsibilities of citizens (Within 500 words)

Response:

Response

Institutional efforts:

Institute follows guidelines given by UGC / KTU/ AICTE / Govt. of Kerala for admissions. Students from different states, regions, castes, and religions are admitted to the institute each year. The institute also makes sure that there is no discrimination against pupils from different backgrounds while they are in school.

The institute spreads awareness among internal stake holders about fundamental rights given by Indian Constitution. These rights include freedom of speech and religion, right to equality, rights against exploitation, cultural and educational rights. An Internal complaints committee ensures a safe working environment in the institute.

On a yearly basis, the NSS Committee plans and celebrates Constitution Day, so contributing to the promotion of constitutional norms and ideas. In accordance with Vision and Mission statement of the institute, the institute ensures proper sensitization of values of the Indian Constitution to students and employees by celebrating

- Independence Day
- Constitution Day
- Republic Day

The institution undertakes different initiatives by organizing various activities to sensitize students and employees to the constitutional obligations i.e. values, rights, duties and responsibilities of citizens through celebrations of Republic Day, Independence Day, Workshops/ Seminars/ Expert Talks on Universal Human Values and Professional Ethics.

Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversity

Name of the activity
Onam day Celebration
Christmas celebration
Birth of Ayyankali
Narayana guru Jayanthi
Energy Conservation Day
National Youth Day
Science Day Celebration
World Engineering Day
Environmental Day

Security Day Celebration
Teachers Day
Engineers Day Celebration
Gandhi Jayanthi
World Habitat Day Celebration
World Students ‘day Celebration
Children’s day
World Water Day Celebration
International Women’s Day
World Cancer Day
National Technology Day
World Food Day
World Organ Donation Day
Intellectual Property Day Celebration
National sports day
World literacy day
Tele communication Day
National martyrs Day
kisanDiwas
Child rights day

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

7.2 Best Practices

7.2.1

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

Response:

Best practice I:

Title of the practice: Project-based pedagogy

Objectives:

- To enhance the students' skillset by bridging the gap between the theoretical concepts and application-oriented cum problem-solving practical techniques
- To encourage students in the development of user-end products beneficial to mankind through team work
- To make the students abreast with latest trends and technologies to develop equipments/machinery with Energy and Environment benefits
- To promote the employability of the students through hands-on experiential education
- To the nurture the intellectual capability of the student community along with invaluable societal insights.

The dynamic teaching approach designed for involving students to explore and combat of the bottlenecks of the real-world though application of their proficiency gained through technical insights. The assignments to students are practical challenges which in turn aids the transformation of theoretical concepts into modern world applications (either equipment or machinery). This pedagogical approach aids the students to development skillsets and employability parallel to their curriculum exploration.

Project-based learning is one of the best techniques for students to have hands-on experience along with teamwork abilities. Moreover, it paves the way for promoting "Energy and Environment conservation" through constructive learning. Through this best practice, the student not only becomes a successful engineer/technologist but a good R&D professional with both conceptual and application-oriented knowledge for betterment of society and environment.

The Practice:

The students are constantly motivated to do projects which aid in reducing the strenuous human efforts, with minimum expenditure of Energy and Economy without compromise in quality. They are continuously supported and guided by highly professional teachers committed to research endorsing socio-economic and environmental profits. The core laboratories not only serve as the place of learning and testing but also provides the platform of making the student mind into realistic applications.

Innovations of the young minds along with mentorship of intellectual experts has significant impact on the scientific community with prime focus to reduce the gap between curriculum and societal needs through application-oriented perception. This unique practice of our esteemed institute has evolved with fruitful outcomes not only sculpturing the students and sharpening their technical insights for the placements and higher research and studies but also fulfilling the basic requirements of mankind through methods, machines and minimized efforts.

Every outcome of this specific practice over these years since implementation has been witnessed with the splendid results of various levels of recognition, awards and rewards, endorsing the institute's contribution directly to the society with deep concern with Energy and Environment.

Evidence of success:

The following outcomes are milestones achieved through the project-based learning motivating the Make in India theme among the students. The uniqueness of this approach is the multidisciplinary involvements which has been complimented with innovations, prototypes, products, programmes and

protocols dealing with the latest AI to the primitive wheel engineering by various departments contributing to the society in different aspects.

Some of the evidence added to the success story of the best practices

Best practice II:

Title of the practice: Translation of research

Objectives:

- To inculcate research in students apart from curriculum and mold them into world-class pioneers along with simultaneous proficiency enhancement of teaching fraternity in the institute
- To promote the professional competence of the teachers and students with novel design, patents and international publications
- To translate research skills into Entrepreneurship and leadership skills
- To encourage start-ups of both students and faculty to develop realistic applications for betterment of mankind.

Context:

Implementation of productive research has to synchronize with its translation, aiding the society and environment. World-class research conducted by the various departments of the institute nurtures the scholastic students with various skills such as leadership, teamwork, hard work and confidence. The novelty and innovation in various engineering and technological fields have to be broadcasted to the scientific community through high impact international publications for its transformation into real-time product/process/design. Harmony of students and mentors in research leads to successful societal ventures not only providing employment but also develop the entrepreneur skills.

Procurement of scientific patents parallel to the publications creates huge impact in the research society. Subsequently, the high-quality research is commemorated in such a way that the students envision new technical ventures to solve the engineering problems. Through this best practice, the institute excels both in academia and research and produces successful entrepreneurs amidst highly qualified employable graduates.

The Practice:

The students are mentored by faculty with the best research proficiency and special focus in successful outcomes intermittently with high-impact research journals and publications. Both faculty and students involve in research-oriented activities and experiments for innovations and novice applications and obtain various patents in relevant research. Also, teamwork and leadership skills promote to the student/faculty to become a successful technical tycoon translating the lab research into mini-industry.

Evidence of success:

This practice of translational of research has made our institute, an exceptional qualitative pragmatic technical forum to employ international level science and engineering assignments with latest trends and technologies. Both faculty and student research have evident outputs as international/national patents,

renowned journals and international/national conferences. The research has extended the entrepreneurship skills of faculty of students and faculties. Since implementation, there are about 50 journal articles, 12 books/book chapters, 25 conference proceedings along with 10 granted patents excluding the patents filed. Also, there are 3 startups (One exclusively international-based) as outcome of translation of our research.

File Description	Document
Best practices as hosted on the Institutional website	View Document

7.3 Institutional Distinctiveness

7.3.1

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

Response:

Giving Back to society and Environment

Sree Buddha College of Engineering recognizes its responsibility to contribute to the holistic development of the rural community. It initiates and supports various community development projects, such as building infrastructure, providing healthcare services, and promoting sustainable agriculture practices.

SBCE serves as a catalyst for positive change in rural [Pattoor], empowering individuals, strengthening communities, and fostering sustainable development. Through its holistic approach to education and community engagement, SBCE exemplifies the transformative potential of higher education in creating a brighter and more equitable future for rural societies. As we continue to navigate the challenges of the 21st century, SBCE remains steadfast in its commitment to serving as a force for social progress and empowerment in the rural landscape

We provide an opportunity to every student to contribute to make the society in which they live a better place and to grow as better individuals. The SBCE has committed itself to the task of inculcating social values and responsibilities in its students.

Activities conducted:

Giving back to society and the environment is incredibly important for fostering positive change and sustainability. There are numerous ways individuals and organizations can contribute:

Students Projects and Technical Programs: The Institute organized mini project, project

exhibition, competitions and technical programs for the students

NSS (National Service Scheme) activities are designed to engage students in community service and social development initiatives.

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

5. CONCLUSION

Additional Information :

The college continuously strives to improve its vision of creating competent engineers with social commitment by providing quality higher education at an affordable cost to the students. Efforts have been made to meet the needs of students' classrooms by constructing new buildings within our limited space, expanding offices and teachers' staff rooms. The college received autonomy from UGC for the improvement of Students calibre in multidisciplinary approach. The entire accounting system has been computerised which will help significantly in terms of transparency and data preservation.

New courses such as Artificial Intelligence and Food technology were introduced to provide multidisciplinary talent to the rural engineers of Pattoor. Mentor mentee system has been introduced to help students by identifying slow learners as advanced learners by following NACC guidelines. The college also collects online feedback from students regarding teaching learning process and takes appropriate action based on it.

Concluding Remarks :

Sree Buddha College of Engineering, Pattoor determined to improve the quality of professional education by fulfilling the vision and mission. Since its inception by collective effort of professional leaders, Sree Buddha College of Engineering was first accredited by NAAC in 2014 and our college was the first self-finance Engineering College accredited by NAAC in kerala. Subsequently SBCE was accredited by NBA in 2019. SBCE was reaccredited by NAAC in 2019 and NBA in 2022 which shows its commitment towards the improvement in quality higher education. It was more about identifying our weaknesses and finding ways to overcome them as possible based on the report of the NAAC /NBA peer team rather than getting a good gradation. The entire IQAC under the leadership of the Principal and Vice principal has taken various initiatives to try to implement the various important aspects of the new National Education Policy as far as possible within our small and limited capacity, keeping in mind the previous reports of the NAAC Peer Team Report. With the unremitting efforts of the team, students and other teaching staff, the college is moving towards the future with the determination to provide quality education