

# **SELF STUDY REPORT**

# FOR

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

# SHRAM SADHANA BOMBAY TRUST'S COLLEGE OF ENGINEERING AND TECHNOLOGY

POST BOX 94,SSBT S COLLEGE OF ENGINEERING AND TECHNNOLOGY, BAMBHORI,JALGAON 425001 425001

www.sscoetjalgaon.ac.in

# SSR SUBMITTED DATE: 23-11-2021

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

November 2021

# **Executive Summary**

### Introduction:

Shram Sadhana Bombay Trust (SSBT) is established in the year 1972, under the guidance of founder chairperson, Smt. Pratibha Devisingh Patil, the former President of India. For betterment of society, the trust has a vision to impart education in sectors like Engineering, Technology and Management.

Under the aegis of SSBT, the College of Engineering and Technology, Bambhori, Jalgaon was started in 1983 to cater the needs of this region. Initially three programmes (Total Intake- 180) viz. Civil Engineering (Construction), Electronics Engineering and Production Engineering were introduced. In the span of 38 years the institute has grown in size and stature. Presently the institute offers Six UG Engineering, Two PG (MBA and MCA) and Four B.Voc. programmes. Also it has SIX recognized research laboratories for Ph.D.

The institute is approved by AICTE, New Delhi, and three times its programmes are accredited by NBA, New Delhi. It is included under section 2(f) and 12(B) of UGC act 1956 and permanently affiliated to Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon. The quality policy of the institute conforms to ISO 9001:2015.

The college is spread over 25 acres of lush green campus, located on the bank of river Girna. The institute adheres to the idea of Environment Conscious Sustainability. The campus has state of the art infrastructural facilities include ICT enabled classrooms, Boys and Girls Hostels, Staff quarters, Sports Complex, Gymnasium, Open air theatre, Cafeteria, Bank, ATM, Wi-Fi campus, etc. which ensures educational outcomes.

The institute has qualified and experienced faculty including 27 with PhD degree and 22 pursuing. Around 2373 students are enrolled in various courses out of which 843 are girls. Institute has 17 recognized research guides with 52 registered scholars for Ph.D. Institute facilitates various scholarship schemes by Government as well by the institute for students. The institute organizes numerous co-curricular and extra-curricular activities focusing on value and skill education for the holistic development of the students and making them employable.

The Institute has distinctive approach towards its Vision by developing skilled human resource and multidisciplinary facilities to enrich Research, Entrepreneurship and Students empowerment.

### Vision:

Today we carry the flame of quality education, knowledge and progressive technology for global societal development; tomorrow the flame will glow even brighter.

## Mission:

To provide conducive environment for preparing competent, value added and patriotic engineers of integrity of par excellence to meet global standards for societal development.

### SWOC

Institutional Strength :

- Lush Green Eco-friendly campus
- State of the art Infrastructural support
- Conducive environment for teaching learning
- Qualified, experienced and dedicated faculty members
- Visionary and Participative Management
- Wi-Fi enabled campus
- Shram Sadhana Scholarships to the needy students
- Value added and Skill Education
- Emerging research culture
- Three times accredited UG programmes by NBA, New Delhi

# Institutional Weakness :

- Less industrial exposure
- Fewer Consultancies
- Less International Exposure

# Institutional Opportunity :

- Startup and Incubation
- Multidisciplinary research
- Institutional autonomy

# Institutional Challenge :

- Attract meritorious students
- Increase awareness in this region towards emerging courses
- Achieve better student placements
- Mushrooming of educational institutions in this region
- Receive grants for research projects / proposals

# Criteria wise Summary

# Curricular Aspects :

The curriculum is prescribed by the Kavayitri Bahinabai Chaudhari North Maharashtra University; however, efforts are made from time to time to modify according to the need and requirement of industry. The syllabus and examination pattern are developed and regularly updated by bodies– Board of Studies (BOS), Faculty and Academic Council of University. During the last five years our teachers have actively contributed for the upgradation of curriculum as Chairman/Members of BOS/ Academic Council.

The institute provides adequate infrastructure, Laboratories, ICT Tools, etc. in order to ensure the effective implementation and to impart quality education. To monitor the implementation of the course structure, the teachers ensure effective curriculum delivery as per Academic Calendar, Teaching Plan, Internal Sessional Examination, Team Projects, Excursions, Guest Lectures, Add-on Courses for advanced learners and Remedial Coaching for slow learners.

Audit Courses, Professional Electives, Open Electives, Skill Enhancement Activities on recent trends and contemporary issues are offered for personal improvement and professional enrichment among students. The Institute invites Industry experts and corporate managers to imbibe faculty and students about technological advancement and industry culture.

There is a mechanism to obtain feedback from students and other stakeholders on curriculum. On the basis of feedback collected, our faculty members provide suggestions to the University to update and modify the course curriculum. Feedback on curriculum from different stakeholders is collected, analyzed and the action taken report is available on institute website.

The institute aims to address cross cutting issues relevant to Gender, Environment and Sustainability, Human Values and Professional Ethics apart from imparting subject knowledge. The institute constituted "Women Grievance Redressal and

Anti Ragging Committee" in order to make everyone aware of gender equity. The committee organizes various activities such as women rights and security, Women Empowerment, health and hygiene, social awareness, usage of social media etc.

The institute is very keen on imbibing universal values among students and is committed to justify the objectives envisaged in the Vision and Mission by way of creating, executing and disseminating the knowledge in the area of Engineering and Management.

# Teaching-learning and Evaluation :

The process of admitting students in this institute is based on Central Admission Process conducted by Director of Technical Education, Maharashtra State. Thereby all the norms of reservation policy formed by Government of India and Maharashtra State are followed. The students acquire admission in various courses in this institute as per the merit rank in Common Entrance Test / JEE score.

The institute assesses the learning levels of the students in every semester based on the previous University examination results and for newly admitted students based on the previous qualifying examination. Based on the assessment, the institute identifies and conducts various special programs for slow learners and advanced learners. The institute has Shram Sadhana Innovation and Entrepreneurship Development cell that provides opportunities for projects. As per AICTE norms, the institute has adequate faculty members and has maintained student – teacher ratio. Average teaching experience of faculty members in the same institute is more than 10 years.

Syllabus structure of all programmes gives experiential and participative learning experiences. As a part of teacher readiness on recent technologies, the faculty members have attended several FDPs, STTPs, Online courses etc. in their respective domain. The institution has taken significant efforts to explore flipped classrooms with ICT tools and e-resources, such as MOODLE - Learning Management System, NPTEL videos, Digital library, e-books / e-journals, etc.

Being affiliated to University, the institute adheres to evaluative process of University. As a part of transparency, grades / marks of internal examination are notified time to time to the students. As per internal examination grievance policy of the institute, the students can meet subject teacher / Mentor / HoD for clarification. The University has well defined mechanism for redressal of grievances pertaining to examination.

As affiliated to University, all courses in the syllabus have defined Course Outcomes (CO). The institute has regular practice of measuring the level of attainment of POs, PSOs, and COs based on their correlation. The result analysis shows that Institute always achieved better results than University results.

The institute takes feedback from stakeholders in various forms to understand the satisfaction level that provides opportunities for improvements.

# **Research, Innovations and Extension :**

Societal service through technical education, research and extension activities is in the instinct of Vision and Mission of the institute. Through research the teachers explore the sea of knowledge and bring up the new technology which makes the budding engineers better employable and human life more comfortable. In the institute there are 27 number of teachers already having Ph D degree and 22 are pursuing Ph D, 17 are recognized research guides. Laboratories of SIX departments are recognized for doctoral research and 52 numbers of candidates are registered for research under them. The teachers write research projects to various funding agencies seeking funds to give concrete shape to their research ideas. They have received Rs 15.72 Lakh in the year 2016 - 17, Rs 3.01 Lakh in 2017 - 18 and Rs 3.85 Lakhs in the year 2018 - 19 respectively. Teachers have published over 120 research papers in the past five years in esteemed international journals. The institute extends its consultancy services to various Government and Private agencies including Jilha Parishad, The university, Railways, Ordnance factory and Contractors. This gives them real world exposure and keeps them updated.

In order to support the innovative ideas of students, seed money is provided by the institute under the scheme Shram Sadhana Innovations and Entrepreneurship Scheme. The institute organizes Entrepreneurship awareness camps to inculcate idea of entrepreneurship in the minds of students.

The prime objective of technical education is to transform the mankind to human resource. However the institute emphasises on holistic development of students inculcating into them a sense of social responsibility. This is achieved by engaging the students and faculty in various social services including blood donation, clothe donation, cleanliness drive

etc. There is an NSS Unit also active in the institute. The institute has associated with Unnat Bharat Abhiyan and has adopted five villages where societal service activities are carried out by teachers and students.

The institute has created collaboration through MoUs with some industrial organizations and University named Prince Songkla University, Thailand. Through these MoUs the institute facilitates industrial visits, guest lectures, internships etc for students and joint ventures like conferences etc.

# Infrastructure and Learning Resources :

The institute has lush green campus, spread over 21.5 acres area. The institute has adequate infrastructure such as classrooms, drawing halls, laboratories, seminar halls, library, computer center, workshop, hostels, canteens, indoor as well outdoor sports facilities, gymnasium, yoga hall etc., covering total built-up area of 31734 sq. m.

The institute has 38 classrooms with total carpet area of 3171 sq.m. that is 26% more than the required area prescribed by AICTE. There are 88 laboratories in the institute, having carpet area of 7050 sq. m. which is 22% more than the required area. The institute has 13226 sq.m. playground for outdoor games, well equipped gymnasium and yoga hall of 187 sq.m. each and open air-auditorium of 1944 sq.m. The institute has 2 boys hostels, girls hostel and teaching & non teaching staff quarters.

The IT infrastructure of the institute includes the facility of 987 desktop computers, LAN, Wi-Fi, Internet, Online admission portal etc. The IT infrastructure includes Optical Fiber Cables of 6.2 km connecting various departments and sections; Internet leased line connection of 100 Mbps bandwidth; wi-fi connectivity; licensed products under Microsoft Edu-Cloud, 38 ICT-enabled class rooms and computer center. The institution has setup Modular Object-Oriented Dynamic Learning Environment (MOODLE) as Learning Management System (LMS).

The library is centrally air cooled, well furnished, spacious and ventilated with separate reading rooms for boys, girls, staff and PG students having 1251sq.m. It has six sections: Stack Section, Reference Section, Periodical section, SC/ST Book Bank section, E-Library and Reading Room. It is a rich library with 64196 volumes, 13635 titles, and 2023 back volumes and 2822 SC/ST book volumes along with general library books. The library has subscribed National and International journals of various disciplines. Well-stacked central library also includes books for the preparation of competitive exams like GATE, GRE, TOEFL and MPSC/UPSC examinations.

Cleanliness and safety are among the top most priorities of the institute. The institute pays due attention towards maintenance and up keeping of laboratory equipments and has established systems and procedures for maintenance and utilization of physical, academic and support facilities.

### Student Support and Progression :

The institute aims to provide all kinds of support to the students. It facilitates scholarships provided by the Government of Maharashtra, Central Government and other agencies (Average benefited students 75%). The students belonging to reserve categories receive scholarships under various schemes. The institute also provided financial support to the needy students.

The institute has started a number of capability enhancement schemes for the benefit of the students. The competitive Examination Cell, Training and Placement Cell, Teacher Guardian Scheme, GATE Coaching classes, Nature Club, Energy club and NSS have been functioning in the institute to enhance the latent potential of the students. Besides, Gymnasium, Yoga and Meditation Centre, Library with online resources and other infrastructure requirements are provided for the smooth conduct of the curricular and co-curricular activities. The Training and Placement Cell of the institute is proactive and invites many MNCs to recruit our students. The students training sessions are regularly organized to augment analytical and soft-skills. The well-equipped Language Lab allows the students to practice language exercises for enhancing their communication skills with a variety of activities. Beyond classroom and curriculum delivery the learning and development of the students is promoted through internships, study tours, field projects, sports, trade fair, and outreach activities. For the active involvement of the students and for their regular participation in governance, events undertaken by the various committees range from conducting social welfare / awareness programs in remote villages, blood donation camps, tree plantations, conducting expert lectures / workshops / seminars, project exhibition, poster & paper presentation, institute level indoor & outdoor sports competition events, cultural events like personality contest, debate competition, Annual Gathering (Vasant Utsav), besides assisting in mega events like Milestone (Technical event), International Conference.

Alumni Association of the institute contributes in many ways for the benefits of students. Every year Alumni meet is arranged in the campus, to bring together all the old students to share their experiences with faculty & students. The

alumni actively participate in the alumni meet and share their experiences.

# Governance, Leadership and Management :

Effective leadership and Governance of the institute is reflected through the involvement of all the stakeholders in decision making. The unique feature of leadership of the institute is in decentralized process which can be seen through the appointments of four Directors i.e Director of Academic Development, Director of Administration, Director of Research and Development and Director of Technical Development. Involvement of these Directors has helped in achieving the Vision of the institute for e.g. the academics of the institute has been improved as evident by rising graph in the institute results, which are at par with the University results.

The institute is keen for effective deployment of its strategic/perspective plan. One of the examples is installation of 'On Grid PV Solar Rooftop Power Plant' as a step towards sustainable development.

The Faculty members are encouraged to upgrade their skills and knowledge. The institute extends financial assistance for participation in STTP, FDP, Seminar etc. The institute organizes National/International Conferences, training programs, seminars and workshops and every staff member is motivated to participate in these. It helps in empowering the faculty competencies. In order to imbibe the research culture institute publishes ilternational Journal titled Pratibha International Journal of Science, Spirituality, Business and Technology. The institute has an effective mechanism for annual assessment of teaching and non teaching staff through well designed 360 Feedback form and evaluation form.

The account section of the institute is firm in effective planning and allocation of finance. Every year, the institutional budget is prepared by account section after considering estimated income and essential requirements of the institute and priorities through consultation with academic departments and other sections. The ERP software is used for effective e-governance of finance and administrative activities.

The IQAC of the institution plays key role in maintaining quality standards in teaching, learning and evaluation. IQAC reviews academic, administrative and research activities regularly. Due to this various activities have been effectively implemented such as add on courses, make-up week, change in exam pattern of ISE, Introducing ICT enabled classroom, organizing skill enhancement training program and introduction of career oriented certificate courses.

# Institutional Values and Best Practices :

The institute is well known for imparting quality education in various disciplines of Engineering and Management. It ensures promotion of gender equity by providing various facilities to women in terms of safety, security, counselling, and common rooms. The institute plays important role in terms of self reliant India by installing alternate sources of energy and energy conservation. It adopts environment friendly practices and takes necessary actions about – energy conservation, rain water harvesting, solid/liquid waste management recycling. The institute takes initiatives including ban on use of plastic for maintaining green campus.

The institute facilitates for the differently able persons, effective dealing of location demerits, explicit concern for human values and professional ethics etc. In other words, the concerns for social responsibilities as well as the values held by the institution are reflected in its regular activities. It takes efforts/initiatives in providing an inclusive environment in tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities by arranging various activities.

The Institute sensitises students and employees to the constitutional obligations, fundamental rights and responsibilities of citizens by organising various National festivals, also celebrates / organizes national and international commemorative days and events in order to keep students and faculty aware about values, history, tradition and culture of the country.

The Institution has prescribed a code of conduct for students, teachers, administrators and other staff. The institution follows best practices which are relevant within the institutional context and pertaining to academic, administrative and organizational aspects of institutional functioning.

The Institute follows best practices of Value added and Skill Education and provide Infrastructural support to ensure educational outcomes. The Institute has established its distinctive approach towards this comprehensive Vision by intending it in the form of service to the society, by developing skilled human resource, multidisciplinary facilities to develop research environment and Entrepreneurship development.

# **BASIC INFORMATION**

Name and Address of the College	
Name	SHRAM SADHANA BOMBAY TRUST'S COLLEGE OF ENGINEERING AND TECHNOLOGY
Address	Post Box 94,SSBT s College of Engineering and Technnology, Bambhori,Jalgaon 425001
City	Jalgaon
State	Maharashtra
Pin	425001
Website	www.sscoetjalgaon.ac.in

Contacts for Communication										
Designation Name		Telephone with STD Code	Mobile	Fax	Email					
Principal	Girish Kumar Patnaik	0257-2258393	9423774254	0257- 2258392	sscoetjal@gmail.com					
IQAC / CIQA coordinator	Sanjay P. Shekhawat	0257-2258394	9423621653	-	spshekhawat@rediffmail.com					

Status of the Institution	
Institution Status	Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minroity institution	No

Establishment Details	
Date of establishment of the college	29-06-1983
University to which the college is affiliated/ or	r which governs the college (if it is a constituent college)

State		University name					Document		
Maharashtr	a	North Maharashtra Uni	versity		View Document				
Details of l	JGC recogni	tion							
Under Sect	tion			Date		V	view Document		
2f of UGC			02-06-200	)8	V	view Document			
12B of UG	С		01-03-201	2	<u> </u>	view Document			
Details of r etc(other t		pproval by stationary/r	egulator	y bodies li	ke AICTE	,NCI	ſE,MCI,DCI,P(	CI,RCI	
Statutory Regulatory Authority	latory Institution/Department year			lonth and ld-mm-	Validity in months	Ren	narks		
AICTE	View D	15-07-	2021	12	curr	Letter for EoA by AICTE for current Academic Year was issued on this date			
		sity Act provide for conf ed by the UGC), on its af		No					
colleges? Recognition	<u> </u>								
				I					
	e recognized Excellence(C	by UGC as a College wit PE)?	th	No					
ls the Colleg governmenta		for its performance by ar	ny other	No					
Location an	d Area of Ca	mpus							
Campus Гуре	Address					ation	Campus Area in Acres	Built up Area in sq.mts.	
Main campus	Post Box 94	,SSBT s College of Engi			al	20.5	33598		

# ACADEMIC INFORMATION

Details of	Details of Programs Offered by the College (Give Data for Current Academic year)										
Program Level	Name of Program/Course	Duration in Months	Entry Qualification		Sanctioned Strength	No.of Students Admitted					
UG	BE,Chemical Engineering	48	HSC Science	English	30	11					
UG	BE,Civil Engineering	48	HSC Science	English,Hindi	60	27					
UG	BE,Computer Engineering	48	HSC Science	English	120	120					
UG	BE,Electrical Engineering	48	HSC Science	English	60	9					
UG	BE,Electronics And Telecommunication Engineering	48	HSC Science	English	60	12					
						1					

UG	BE,Information Technology	48	HSC Science	English	60	54
UG	BE,Mechanical Engineering	48	HSC Science	English	60	12
UG	BE,Biotechnology	48	HSC Science	English	30	7
UG	BVoc,B Voc Cosmetology	36	HSC	English	30	0
UG	BVoc,B Voc Electronics Manufacturing Services	36	HSC	English	30	0
UG	BVoc,B Voc Refrigeration And Air Conditioning	36	HSC	English	30	0
UG	BVoc,B Voc Software Development	36	HSC	English	30	0
PG	MBA,Master Of Business Administration	24	Graduation	English	60	54
PG	MCA,Master Of Computer Application	24	Graduation	English	60	0

<b>Feaching Faculty</b>													
	Profess	sor			Associ	ate Profe	ssor		Assis	tant F	Profes	sor	
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Fe	male	Others	Total
Sanctioned by the UGC /University State Government				12				24	1				7
Recruited	11	0	0	11	12	1	0	13	46	28		0	74
Yet to Recruit				1				1	1				
Sanctioned by the Management/Society or Other Authorized Bodies				0					)				2
Recruited	0	0	0	0	0	0	0	0	18	5		0	23
Yet to Recruit				0				(	)				
/University State Gove	rnment										86		
Recruited Yet to Recruit Sanctioned by the Management/Society o Authorized Bodies		81			5						86 0 0		
Yet to Recruit Sanctioned by the Management/Society o Authorized Bodies Recruited		81 81 0			5 0						86 0 0 0		
Yet to Recruit Sanctioned by the Management/Society o Authorized Bodies								thers			86 0 0		
Yet to Recruit Sanctioned by the Management/Society o Authorized Bodies Recruited Yet to Recruit Fechnical Staff	or Other				0			thers			86 0 0 0 0		
Yet to Recruit Sanctioned by the Management/Society o Authorized Bodies Recruited Yet to Recruit Fechnical Staff Sanctioned by the UGC /University State Gove	or Other				0			thers			86 0 0 0 0 0 Total		
Yet to Recruit Sanctioned by the Management/Society o Authorized Bodies Recruited Yet to Recruit Fechnical Staff Sanctioned by the UGG /University State Gove Recruited	or Other	0 Male			0			thers			86 0 0 0 0 0 Total 9		
Yet to Recruit Sanctioned by the Management/Society o Authorized Bodies Recruited Yet to Recruit Fechnical Staff Sanctioned by the UGO	or Other	0 Male			0			thers			86 0 0 0 0 0 0 7 0 1 0 9 9 9		

			0
ľ			

# Qualification Details of the Teaching Staff

Permanent Teachers											
Highest Qualification	Professor			Associ	Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0	
Ph.D.	11	0	0	6	1	0	6	3	0	27	
M.Phil.	0	0	0	0	0	0	0	2	0	2	
PG	0	0	0	6	0	0	43	7	0	56	

Temporary Teachers										
Highest Qualification	Profes	Professor			Associate Professor		Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	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	17	19	0	36

Part Time Teachers										
Highest Qualification	Profes	Professor			Associate Professor		Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	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

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

Prov	Provide the Following Details of Students Enrolled in the College During the Current Academic Year						
Pr	ogram	From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total	
	Male	70	0	0	0	70	
PG	Female	44	0	0	0	44	
	Others	0	0	0	0	0	
	Male	1452	8	0	0	1460	
UG	Female	799	0	0	0	799	
	Others	0	0	0	0	0	

Provide	the Following De	etails of Students	admitted to the Colleg	ge During the last fou	r Academic Years
Categor	у	Year 1	Year 2	Year 3	Year 4
SC	Male	20	22	28	13
	Female	11	11	11	3

	Others	0	0	0	0
	Male	10	18	1	3
ST	Female	3	2	4	1
	Others	0	0	0	0
	Male	196	216	194	158
OBC	Female	77	99	77	83
	Others	0	0	0	0
	Male	77	76	73	50
General	Female	25	49	27	17
	Others	0	0	0	0
	Male	53	51	38	55
Others	Female	19	18	14	21
	Others	0	0	0	0
Total		491	562	467	404

Provide the Following Details		
Number of Programs		New Programs introduced during the last five years
	14	5

Provide the Following Details		
Unit Cost of Education	Including Salary Component	Excluding Salary Component
63064	63064	23516

# QIF

# **1.Curricular Aspects**

1.1 Curricular Planning and Implementation

1.1.1 The Institution ensures effective curriculum delivery through a well planned and documented process

# Answer:

Curriculum delivery by the institute is as per the guidelines provided by the Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon. Based on the guidelines of the University the institute prepares academic calendar to accomplish the mission and vision. The academic calendar explores resource potentials, executes institutional objectives and imparts quality education towards students' development. Institute ensures that the academic calendar is well planned in consultation with all concerned for effective execution. Academic Calendar includes schedule for student registration, internal sessional examinations, co-curricular activities and extra-curricular activities etc. The departments adhere to the institute calendar and prepare departmental academic calendar to accomplish Programme Specific Outcomes. The academic calendar is disseminated to all concerned. Before the start of every semester, faculty members are assigned courses based on their specialization, interest and competency through consultation at the department and accordingly the department prepares timetable. All faculty members prepare / update lesson plan, lecture notes, Lab manuals, model answers and other resource materials. During pandemic such materials were made available to students online. Periodic review in the meeting of HODs with Principal helps in effective curriculum delivery. Further, students' feedback fine tunes to fulfil the academic need of students. Identification of slow learners and advanced learners also helps to cater the need. These are the regular practices of the institute and adapted in the curriculum in well planned manner. As part of curriculum the students are required to undergo internship during vacations. The institute encourages students for internships by acting as liaison.

4

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

1.1.2 The institution adheres to the academic calendar including for the conduct of CIE

# Answer:

An academic calendar is prepared by the institute at the beginning of each academic year in line with the University's calendar. The calendar is uploaded on institute website, displayed on notice boards and is communicated to teachers and students. All the classes and examinations are planned as per the calendar, thus ensuring complete adherence. Time table Coordinator of each department prepares the time table as per academic calendar and university curriculum for the number of credit hours for each subject prior to the start of the semester. Time-table is displayed on notice boards of every department. After the allocation of subjects to faculty, course file of each subject is prepared consisting of lesson plan. It also contains the assignments, old question papers, sample solutions of university question papers, lecture notes, etc. This lesson plan is duly approved by the Head of the department. Each Head of the Department maintains a monthly monitoring report on course coverage, student attendance and assignment provided for every subject. Remedial classes are conducted for weak students in mathematical/conceptual subjects. At the mid of academic session students submit their feedback for each subject through online/offline feedback forms maintaining complete anonymity. Internal Sessional Examinations dates are mentioned in the academic calendar. Detailed Examination schedule is announced prior to one week from the scheduled dates of respective examinations. The question papers of internal sessional exams are prepared by concerned faculty members. The answer papers are evaluated and shown to students to ensure transparent and unbiased evaluation. In addition to the internal sessional exams, assignments and quizzes are also the part of Internal Continuous Assessment. Assignments are provided to students if mentioned in respective course and solutions are submitted by students within a week. During pandemic every teacher has conducted tests consisting of MCQs on the related topic for practice and revision with the help of Google forms. Internal Continuous Assessment for practical is carried out regularly by the concerned faculty member. Every student submits term work in the form of journal on the designated date as per academic calendar. The academic calendar includes tentative dates of university exams for theory subjects as End Semester Examination. However, final university exam schedule is displayed by University and communicated to students on students' notice boards. In case of labs and projects, practical exams are conducted by respective departments before/after the university examinations as per the directions by University. In case of unseen conditions, the institute academic calendar is modified and revised as per the instructions of Principal of the Institute.

.

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

1.1.3 Teachers of the Institution participate in following activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies during the last five years

1. Academic council/BoS of Affiliating university

2. Setting of question papers for UG/PG programs

3. Design and Development of Curriculum for Add on/ certificate/ Diploma Courses

4. Assessment /evaluation process of the affiliating University

Answer: B. Any 3 of the above

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

# **1.2 Academic Flexibility**

1.2.1 Percentage of Programmes in which Choice Based Credit System (CBCS)/ elective course system has been implemented

# Answer: 100

# 1.2.1.1 Number of Programmes in which CBCS / Elective course system implemented.

Answer: 2

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

1.2.2 Number of Add on /Certificate programs offered during the last five years

# Answer: 17

1.2.2.1 How many Add on /Certificate programs are offered within the last 5 years.

Answer:

2020-21 17	2019-20 0	2018-19 0	2017-18 0	2016-17 0	
		File Desc	ription	Document	
List of Ac	ld on /Certif	icate progra	ms	View Document	
Any addit	tional inform	nation		View Document	
Link for A	Additional in	formation		View Document	

1.2.3 Average percentage of students enrolled in Certificate/ Add-on programs as against the total number of students during the last five years

**Answer:** 14.85

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

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17			
1762	0	0	0	0			
		File Desc		Document			
	the students Add-on pro			View Document			
Any additional information						View Document	

**1.3 Curriculum Enrichment** 

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

Answer:

The institute has been working for the development of the students through the following parameters: -

1. Professional Ethics: - Being an engineering institute, inherently students acquire professional ethics through the institute environment and culture. As part of programme curriculum, topics related to professional ethics are included in the syllabus like Organizational Behavior, project management etc. Experiential learning through industrial visit and participative learning through expert lectures also imbibes professional ethics.

2. Gender Equality: - Though the institute is co-education, for gender equity the institute has constituted "Women Grievance Redressal and Anti Ragging Committee". In order to make everyone aware of gender equity, the committee organizes various activities such as women rights and security, Women Empowerment, health and hygiene, social awareness, usage of social media etc. Meetings of the committee members are conducted regularly and various points are discussed to provide better environment for the women. The institute has ragging free environment.

3. Human Values: - The institute is very keen on imbibing human values among students through various activities such as celebrating Independence Day, Republic Day, Gandhi Jayanti, Teacher's Day, Voters Awareness Day, International Yoga Day, World Environment Day, Youth Day, Traditional day etc.

4. Environmental and Sustainability: - Environmental Studies is a part of curriculum as prescribed by the University. It helps to create awareness about the Ecosystem, Natural Resource Conservation, Waste Management and Pollution. This curriculum is supported by field visit. The institute organizes Tree Plantation Program, Cleanliness Program and special lectures to make everyone aware of the importance of environment and sustainability issues. Rainwater Harvesting, waste water recycling, usage of solar energy, illumination through LED etc. at the institute creates awareness and consciousness among staff and students.

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

1.3.2 Average percentage of courses that include experiential learning through project work/field work/internship during last five years

**Answer:** 100

# 1.3.2.1 Number of courses that include experiential learning through project work/field work/internship year-wise during last five years

Answer:

#### 2020-21 2019-20 2018-19 2017-18 2016-17 9 11

0		
9		

11 14

File Description	Document
Programme / Curriculum/ Syllabus of the courses	View Document
MoU's with relevant organizations for these courses, if any Average percentage of courses that include experiential learning through project work/field work/internship	View Document
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	View Document
Any additional information	View Document

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

Answer: 61.19

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

Answer: 1452

File Description	Document
List of programmes and number of students undertaking project work/field work/ /internships	View Document
Any additional information	View Document

# 1.4 Feedback System

1.4.1 Institution obtains feedback on the syllabus and its transaction at the institution from the following stakeholders

1) Students

2) Teachers

3)Employers

4)Alumni

**Answer:** B. Any 3 of the above

File Description	Document
Any additional information (Upload)	View Document
URL for stakeholder feedback report	View Document

1.4.2 Feedback process of the Institution may be classified as follows:

**Options:** 

- 1. Feedback collected, analysed and action taken and feedback available on website
- 2. Feedback collected, analysed and action has been taken
- 3. Feedback collected and analysed
- 4. Feedback collected
- 5. Feedback not collected

Answer: B. Feedback collected, analysed and action has been taken

File Description	Document
Upload any additional information	View Document
URL for feedback report	View Document

# 2. Teaching-learning and Evaluation

# 2.1 Student Enrollment and Profile

2.1.1 Average Enrolment percentage (Average of last five years)

**Answer:** 65.9

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

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
306	419	509	611	548
2.1.1.2 <b>Nu</b>	mber of san	ctioned seat	s year wise	during last five years

File Description						Document
540	750	750	750	810		
2020-21	2019-20	2018-19	2017-18	2016-17		

Institutional data in prescribed format	View Document
Any additional information	View Document

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

# **Answer: 36.08**

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

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17	
58	76	100	127	97	
		File Desc	ription	Document	
Average p	percentage of	f seats filled	against seat	View Document	
Any additional information					View Document

**2.2 Catering to Student Diversity** 

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

# Answer:

The institute conducts the assessment of learning levels for the students based on their performance in the previous examination. For newly admitted students at the first year engineering the performance in 12th class is considered and at the second year engineering the performance in diploma is considered. Similarly for newly admitted students at the first year MBA the performance in graduation is considered. And thereafter the assessment is based on the performance in the previous semester University Examination.

For newly admitted students at the first year engineering and second year engineering, students securing more than 60% marks in 12th class board examination and diploma board examination respectively are identified as advanced learners. And the students securing less than 53% marks in the respective board examination are identified as slow learners for the newly admitted students at the first year engineering and second year engineering. Same criteria are also used for the newly admitted students at the first year MBA.

For successive semesters over the four years engineering course, students securing more than 7.0 SGPA in the previous semester university examination are identified as advanced learners and less than 4.0 are identified as slow learners. Same criteria are used for successive semesters over the two years MBA course to identify advanced learners and slow learners.

In addition to this the Teacher – Student interaction under Teacher – Guardian scheme (mentoring) also helps to assess & cater their needs.

The institution organizes Induction program for three weeks as per the university curriculum for the newly admitted students. The program includes physical activities, creative arts, yoga & meditation, universal human values, lectures by eminent people, familiarization to department & branch etc.

The institution pays special attention to the First year Engineering (FE) students. Students those who could not perform well in the first Internal Sessional Examination at FE are provided with additional learning support through senior faculty members. The senior faculty members conduct extra lectures of the respective subjects for such students during additional hours.

The institution also pays due attention to senior class students. The concerned subject teacher provides additional learning support to such students through personal guidance &counseling.

In order to provide a different level of attention for advanced learners and slow learners, the outline of activities conducted by the institute is as follows.

# **Advanced Learners:**

- · Expert lectures by Industry Persons & Alumni
- · Training on Recent Technologies / Software
- Special Guidance for Competitive Examinations like GATE
- Workshop on Entrepreneurship Development
- Technical events like Paper Presentation, Project Competition etc.
- · ShramSadhana Innovation and Entrepreneurship Development Centre (SSIEDC) scheme
- · Online Courses on SWAYAM, NPTEL etc.

# **Slow Learners:**

- · Additional Learning Support
- · Peer Learning
- Video Lectures
- Add on Courses

.

File Description	Document
Upload any additional information	View Document
Past link for additional Information	View Document

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

# **Answer:** 19.78

File Description	Document
Any additional information	View Document

# 2.3 Teaching- Learning Process

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

## Answer:

The institute is affiliated to K.B.C. North Maharashtra University, Jalgaon (M.S.) and follows the syllabus of the university. The University has made provision in structure of all programmes to give students experiential and participative learning experience.

Instead of teacher-centric conventional teaching methods, the institution strongly believes that student-centric learning methods enhance the lifelong learning skills of students. Hence the institute has adopted the below-mentioned student-centric methods.

# **Experiential learning methodology:**

Laboratory practical sessions

Field work

Internship

Project Development Industry Visits / Site Visits Case Studies Training & Workshop **Participative learning methodology:** Paper Presentation / Project Competitions Group Discussion Industrial Visits Co-curricular / Extra Curricular Activities Student Chapter / Club Activities NSS & Extension Activities **Problem solving methodology:** Quiz

Peer group Teaching

Special Assignments

The institution has taken significant efforts to explore flipped classrooms with ICT tools and e-resources, such as MOODLE - Learning Management System, NPTEL videos, Digital library, e-books / e-journals, etc that add to student-centric methods.

.

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

2.3.2 Teachers use ICT enabled tools for effective teaching-learning process.

## Answer:

Information and Communication Technology (ICT) has been an integral part of teaching-learning process in the institute. The institute has made conscious efforts to invest in hardware and to orient the faculty suitably to enrich the learning experiences of students.

The institute has put in place the electronic data management systems and electronic resources and their access to internal and external stakeholders particularly the student community. It includes 100 Mbps Internet lease line, ERP system, MOODLE – Learning Management System, Digital Library, e-books / e-journals, NPTEL Videos, Language Lab etc.

For effective teaching –learning process, total number of classrooms and seminar halls with ICT-enabled facilities in the institute are 41, out of which 10 rooms are with wall-mounted Interactive LCD Projectors and Duplex Projection Screen, and the remaining are with LCD Projectors. The faculty members are encouraged to use ICT tools in the class room delivery.

The institute has made all possible efforts to train faculty members on usage of ICT in teaching-learning process during this pandemic. All faculty members have undergone training on Live Classroom Teaching Platforms & Tools, video editing, conducting online Internal Sessional Examination (ISE), MOODLE – Learning Management System etc. The faculty members also have attended online FDP / STTP on recent technologies with an objective not only to learn recent technologies but also to learn delivery methodology followed by resource persons.

During the COVID - 19 pandemic, the faculty members have recorded theory lectures and laboratory sessions / experiments using appropriate hardware & software. Those recorded videos are shared among students through various online platforms & social media. All the faculty members are well versed with online teaching through various online delivery platforms.

•

File Description	Document
Upload any additional information	View Document
Provide link for webpage describing the ICT enabled tools for effective teaching-learning process	View Document

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

# **Answer:** 19.78

# 2.3.3.1 Number of mentors

# Answer: 120

File Description	Document
Upload year wise, number of students enrolled and full time teachers on roll.	View Document
mentor/mentee ratio	View Document
Circulars pertaining to assigning mentors to mentees	View Document

# 2.4 Teacher Profile and Quality

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

# **Answer:** 99.84

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

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

**Answer:** 18.79

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

Answer:

2020-212019-202018-192017-182016-172826282624

File Description	Document
List of number of full time teachers with Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. and number of full time teachers for 5 years (Data Template)	View Document
Any additional information	View Document

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

# Answer: 10.93

# 2.4.3.1 Total experience of full-time teachers

Answer: 1311.96

File Description	Document
List of Teachers including their PAN, designation, dept and experience details(Data Template)	View Document
Any additional information	View Document

# **2.5 Evaluation Process and Reforms**

2.5.1 Mechanism of internal assessment is transparent and robust in terms of frequency and mode

# Answer:

The institute is affiliated to K.B.C. North Maharashtra University, Jalgaon (M.S.) and follows the syllabus of the university. As part of syllabus, the internal assessment of students includes Internal Sessional Examination (ISE) for theory subjects and Internal Continuous Assessment (ICA) for practical & project.

In each term, Three ISEs, each of 20 marks, are conducted as per the academic calendar of the institute, and best TWO is considered as ISE marks in the respective subject. The evaluated ISE answer papers are shared with students as a part of transparency.

Evaluation of ICA for practical is done on the basis of Attendance (A), Performance (P), Journal (J), and Viva (V). The assessment of ICA for Project is as per guidelines given in the syllabus that includes students' performance, active participation, knowledge / skill acquired throughout semester and presentation by the students.

As a part of transparency, grades of ICA and marks of ISE are notified time to time to the students by displaying on the notice board and through WhatsApp.

More particularly during the COVID - 19 pandemic, the internal assessments are conducted through online as per scheduled time. For descriptive answers in ISE, the answer papers are collected by email within the time limit. The evaluated ISE answer papers are shared online with students. For multiple choice questions in ISE, the answers are collected through Google forms. The submitted Google forms are evaluated and communicated to students through email along with correct answers. Similarly, for ICA of practical, online viva are conducted based on practical demonstrated by the concerned teacher. And for ICA of project, the assessment is conducted through online presentation by the students.

•

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

# 2.5.2 Mechanism to deal with internal/external examination related grievances is transparent, time- bound and efficient

# Answer:

As an affiliating institute, the institute follows syllabus and curriculum of K.B.C. North Maharashtra University, Jalgaon (M.S.). As part syllabus, the internal assessment of students includes Internal Sessional Examination (ISE) for theory subjects and Internal Continuous Assessment (ICA) for practical & project.

Grievance regarding the internal assessment is taken care of by the respective Departments. In case of redressal of grievances, the students can meet subject teacher / Mentor / HoD for clarification. More particularly during the

COVID – 19 pandemic, the students communicated with subject teacher / Mentor / HoD through phone / WhatsApp for any grievances.

As per internal examination grievance policy of the institute, the students can meet subject teacher / Mentor / HoD for clarification within FOUR days of publication on the concerned department notice board for grievance related to the internal assessment.

University has a well-defined mechanism for redressal of grievances with reference to evaluation. The mechanism has the provision for the students to apply for verification of marks and photocopy of answer books. Further, the student may also challenge the evaluation. Moreover, student's grievances related to declaration of pending results are forwarded through Principal.

.

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

# 2.6 Student Performance and Learning Outcomes

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

# Answer:

The institute is very much keen on the learning outcomes which are specifications of what a student should be capable of doing on successful completion of a course and/or a programme.

The institute is affiliated to K.B.C. North Maharashtra University, Jalgaon (M.S.) and follows the syllabus of the university. All courses in the syllabus of the curriculum have well defined Course Outcomes. In aligned with the same the Institute has clearly stated Program Outcomes (POs), Program Specific Outcomes (PSOs), and Course Outcomes (COs). Each CO is mapped to PO and PSO in terms of their correlation.

The following mechanism is followed by the institute to communicate/disseminate outcomes to the teachers and students.

- Vision-Mission, Program Educational Objectives (PEOs), POs, PSOs of the Programmes offered by the institute are uploaded in the institute website (https://sscoetjalgaon.ac.in/) and also displayed at the prominent locations.
- The syllabus of all programmes is made available on the institute website which includes the COs of various courses of the curriculum.
- COs of theory subjects are made aware to the students by the concerned faculty member at the beginning of every semester.
- POs, PSOs and COs of lab course are made aware to the students and also provided in the lab manuals by the concerned faculty member at the beginning of every semester.
- POs, PSOs and COs along with CO-PO &CO-PSO mapping are made available on the institute website (https://sscoetjalgaon.ac.in/) and MOODLE Learning Management System (http://elearning.sscoetjalgaon.ac.in/moodle/) that is accessible over internet.
- All the faculty members prepare course file for each semester that lists the POs, PSOs and COs along with CO-PO &CO-PSO mapping.
- Newsletters by all departments also include PEOs, POs and PSOs and published on the institute website (https://sscoetjalgaon.ac.in/).

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

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

The institute has practice of measuring the level of attainment of Program Outcomes (POs), Program Specific Outcomes (PSOs), and Course Outcomes (COs) as per the syllabus by K.B.C.North Maharashtra University, Jalgaon (M.S.). Broadly the tools used for the assessment of POs & PSOs involve CO attainment through University results.

In every semester, CO attainment is evaluated based on the University results. The syllabus has University Assessment, known as End Semester Examination (ESE) for theory and practical, and College Assessment, known as Internal Continuous Assessment (ICA) for practical and Internal Sessional Examination (ISE) for theory. The University assessment contributes 60% and college assessment contributes 40% towards the attainment of CO for each subject (Theory and Practical). For each subject, the CO attainment level, i.e. Level – 1, Level – 2, Level – 3, is calculated based on the percentage of students scoring more than University average mark in the ESE and percentage of students scoring more than College average marks in the ISE / ICA respectively. Level – 1 is defined as 30%, Level – 2 is defined as between 31% to 60% and Level– 3 is defined as above 60%.

Based on the mapping of COs with POs and PSOs, the respective CO attainment contributes to the attainment of POs and PSOs as direct assessment tool. Attainment of POs and PSOs arecalculated for each batch at their end of programme.

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

2.6.3 Average pass percentage of Students during last five years

Answer: 92.92

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

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
633	707	689	670	710
			_	

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

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
639	747	761	759	771

File Description	Document
Upload list of Programmes and number of students passed and appeared in the final year examination (Data Template)	View Document
Upload any additional information	View Document
Paste link for the annual report	View Document

# 2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

### Answer:

File Description	Document
Upload database of all currently enrolled students (Data Template)	View Document

Upload any additional information	View Document	
Prove my exercise monorm		I

# **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, Chairs in the institution during the last five years (INR in Lakhs)

# **Answer:** 22.58

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

Answer:

File Description					
0	0	3.85	3.01	15.72	
2020-21	2019-20	2018-19	2017-18	2016-17	

File Description	Document
1 5 6	View Document
e-copies of the grant award letters for sponsored research projects / endowments	View Document

٦

Document

3.1.2 Percentage of teachers recognized as research guides (latest completed academic year)

# **Answer:** 14.17

# 3.1.2.1 Number of teachers recognized as research guides

Answer: 17

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

3.1.3 Percentage of departments having Research projects funded by government and non government agencies during the last five years

### Answer: 28.89

# 3.1.3.1 Number of departments having Research projects funded by government and non-government agencies during the last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	3	4	6

3.1.3.2 Number of departments offering academic programes

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17

	9	9	9	9
--	---	---	---	---

1	
File Description	Document

9

Supporting document from Funding Agency	View Document
List of research projects and funding details	View Document
Paste link to funding agency website	View Document

**3.2 Innovation Ecosystem** 

# 3.2.1 Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge

# Answer:

Innovative ideas are emanating from the minds of students as well as teachers. These contemplations need a conducive environment to take a concrete shape, to nurture up and to be fruitful. Institute has recognized this basic philosophy. It has an indigenous research funding scheme named Shram Sadhna Research Promotion Scheme. Under this scheme, the teachers write research proposals seeking seed money to shape their innovative ideas. The proposals are scrutinized by the expert committee and are funded based upon merit. Teachers are also encouraged to write research proposals seeking research funds from various government agencies.

The laboratories of the departments are well equipped and they can sustain shaping of innovative ideas and budgetary allocations for equipments, consumables and meeting special needs of research are provided.

In order to provide seed money to the innovative ideas of students, the institute has a scheme under Sharm Sadhna Innovations and Entrepreneurship Development Cell. The cell invites innovation proposals from students. The proposals are scrutinized by the expert committee and based upon their merit they are funded. This motivates students to go for innovative projects and learn by doing.

The students of the institute have won National Level Prizes under prestigious Hackathon competition for their innovative ideas and projects based upon those ideas in the year 2018-19 and 2019-20.

The institute has recognized its laboratories of six departments for doctoral research. Here the faculty registers for Ph D and thus the research and innovations are promoted. There are 17 number of faculty members recognized for guiding Ph D in the institute. Thus the research facilities for the indigenous faculties are readily available.

.

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

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

# Answer: 7

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

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17	
2	3	0 File Desc		1	Document
Report of	Report of the event			View Document	
List of wo	List of workshops/seminars during last 5 years			View Document	

# **3.3 Research Publications and Awards**

3.3.1 Number of Ph.Ds registered per eligible teacher during the last five years

# **Answer:** 0.18

3.3.1.1 How many Ph.Ds registered per eligible teacher within last five years

# Answer: 3 3.3.1.2 Number of teachers recognized as guides during the last five years

Answer: 17

File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	View Document
Any additional information	View Document
URL to the research page on HEI website	View Document

3.3.2 Number of research papers per teachers in the Journals notified on UGC website during the last five years

# **Answer:** 0.64

# 3.3.2.1 Number of research papers in the Journals notified on UGC website during the last five years.

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
12	11	11	52	6

2018-19

2017-18

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

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

# **Answer:** 0.89

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

2016-17

Answer:

2020-21

2	56	7	17	45	
		File D	Description	Document	
List books and chapters edited volumes/ books published					View Document
Any ac	lditional info	mation		View Document	

# **3.4 Extension Activities**

2019-20

3.4.1 Extension activities are carried out in the neighborhood community, sensitizing students to social issues, for their holistic development, and impact thereof during the last five years.

# Answer:

The Institute's mission statement explicitly mentions "preparing engineers for societal development". The entire curriculums of the courses have been skilfully amalgamated with the co-curricular and extracurricular activities to train students for societal service also. There are several societal services activities undertaken by the institute at the central level as well as at the departmental level. A summary report of such activities is presented here:

Blood Donation: A blood donation camp is organized every year in the institute leading to the blood collection of over one hundred bags at a time. There is a great awareness in the student fraternity and they are willing to donate blood in case of emergency requirements.

Clothe Donation: Students collect old clothes and distribute them in slum localities, spreading some warmth in the people lives.

Cleanliness Drive: To aware students about the importance of cleanliness and physical work, cleanliness drives are organized in the campus. Students and Staff members do cleaning work. A Clean Room competition on the occasion of Gandhi Jayanti is also organized every year for resident students.

Environmental Awareness: To enhance environmental awareness, a no vehicle day was celebrated in the institute. Students and Staff members shared the vehicles and used the public transport system in place of the private vehicles.

Tree Plantation: This drive is carried out every year at the campus.

Awareness Regarding Addiction: Tobacco is, unfortunately, spreading as a common addiction in society. To create awareness in this regard, International Head and Neck "Cancer Day" program was organised by Student Development Department. In this program, a short film was shown to students to realize how smoking, tobacco chewing harm the human body. A pledge was taken by students for a tobacco-free campus.

Some more activities include:

- Fruit Distribution in Civil Hospital to poor patients
- Visit to the Orphanage, to spare time with orphan kids, offering them snacks etc.
- Visit to Old Age Home and spare time with old people offering them meals etc.

The institute joined the ambitious Unnat Maharashtra Abhiyan of the Government and adopted five villages. Extension activities were undertaken in these villages like:

- Collecting Polythene from villages and distributing cloth bags
- A medical examination camp was organized in the village
- Village survey as per the prescribed document of the Government of India and creating a useful database.
- Submitting Projects to the government for village development based upon the database.

3.4.2 Number of awards and recognitions received for extension activities from government/government recognised bodies during the last five years

### Answer: 8

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

Answer:

2020-21 1	2019-20 5	2018-19 2	2017-18 0	2016-17 0	
		File Desc	cription	-	Document
Number o	Number of awards for extension activities in last 5 year			View Document	
e-copy of	e-copy of the award letters			View Document	

3.4.3 Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc., during the last five years (including Government initiated programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. and those organised in collaboration with industry, community and NGOs)

<sup>.</sup> 

# Answer: 29

3.4.3.1 Number of extension and outreached Programmes conducted in collaboration with industry, community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., year-wise during the last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
8	8	8	3	2

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

3.4.4 Average percentage of students participating in extension activities at 3.4.3. above during last five years

**Answer:** 12.48

3.4.4.1 Total number of Students participating in extension activities conducted in collaboration with industry, community and Non- Government Organizations such as Swachh Bharat, AIDs awareness, Gender issue etc. yearwise during last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
286	442	537	247	86

File Description	Document
Report of the event	View Document
Average percentage of students participating in extension activities with Govt or NGO etc	View Document

3.5 Collaboration

3.5.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship per year

Answer: 52

3.5.1.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship year-wise during the last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17		
1	12	10	16	13		
File Description					Document	
e-copies of related Document						View Document
Details of Collaborative activities with institutions/industries for research, Faculty exchange, Student exchange/ internship				View Document		

3.5.2 Number of functional MoUs with institutions, other universities, industries, corporate houses etc. during the last five years

Answer: 23

# 3.5.2.1 Number of functional MoUs with Institutions of national, international importance, other universities, industries, corporate houses etc. year-wise during the last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
3	4	6	3	7

File Description	Document
e-Copies of the MoUs with institution/ industry/corporate houses	View Document
Details of functional MoUs with institutions of national, international importance, other universities etc during the last five years	View Document

# **4.Infrastructure and Learning Resources**

# 4.1 Physical Facilities

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

# Answer:

Since establishment in 1983, SSBT's College of Engineering and Technology, being infrastructure as one of its strength, has developed all-round to provide conducive environment for the students. The institute believes that the adequate infrastructure and physical facilities provide plenty of opportunities to both students and faculty for their inclusive growth & development.

Being one of the most preferable learning institute in this region, the institute has never compromised with infrastructural facilities be it buildings, laboratories, library, equipment, computers, software, books and other learning resources. The campus is lush green, spread over 21.5 acres area and located on the bank of river 'Girna'. As a learning institute, the institute has adequate infrastructure such as classrooms, drawing halls, laboratories, seminar halls, library, computer center, workshop, hostels, canteens, indoor as well outdoor sports facilities, gymnasium, yoga hall etc., covering total built-up area of 31734 sq. m.

**Classrooms and Tutorial Rooms:** Each classroom is specifically designed in spacious and proper shape with comfortable sitting arrangement for effective communication between teacher and students. Institution has 38 classrooms with total carpet area of 3171 sq.m. that is 26% more than the required area. All classrooms are equipped with ICT-enabled facilities to adopt appropriate teaching methodology. For conducting tutorials and academic counseling, students are divided into smaller groups and the activities are carried out in tutorial rooms.

**Seminar Halls:** The institute has 3 central seminar halls that are available to interact with larger group of students or to conduct expert lectures, curricular, extra-curricular and other activities. They are equipped with ICT-enabled facilities. In addition to this, there are 5 departmental seminar halls.

**Laboratories:** Alllaboratories are fully equipped with the required equipments and machineries to conduct all types of practical prescribed in the curriculum. In total, there are 88 laboratories in the institute, having carpet area of 7050 sq. m. which is 22% more than the required area.

**Computing Facility:** It consists of 987 desktop computers with necessary software as per the curriculum and 85 printers. The institute has the subscription of Microsoft Edu-Cloud. All desktop computers are connected with 100 Mbps Internet leased line through Next Generation Firewall. The institute has Wi-Fi zones across all corners of the campus through 60 Wi-Fi Access Points.

**Library:** The Central Library of the institution is spread over 1251 sq.m. which is almost double than the required area. The library includes all facilities of the conventional library and as well the facilities of digital library. The conventional library has sufficient number of printed titles, volumes, journals and magazines to cater the need of students. And the digital library has necessary e-resources like e-books, e-journals, NPTEL videos etc.

**Workshop:** The workshop of the institution is fully equipped with several machineries viz. CNC Lathe and Milling machine, Universal Milling machines, Conventional Lathe machines, Radial Drilling machine, Shaper machine, Wood Turning machine etc. for students. Total outlay for workshop is Rs. 49.41 lakhs.

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

4.1.2 The Institution has adequate facilities for cultural activities, sports, games (indoor, outdoor), gymnasium, yoga centre etc.

# Answer:

The institute believes in holistic development of students and ensures that students acquire all the required graduate attributes upon completion of the programme. For every academic year, the institute makes provision for extracurricular activities in its academic calendar that balances between curricular, co-curricular and extra-curricular activities for the all-round development of students. The facilities are made available to all students to participate at various levels in sports and cultural activities.

The institute has constituted sports committee that includes Physical Director to plan and execute sports activities for the students. Meetings of sports committee members are conducted regularly to discuss issues related to smooth conduction of events. The institute sanctions budget for various sports events. All possible efforts and necessary facilities are made available to ensure students participation not only at institute level but also at University level, Zonal level and State level. The institute organizes annual sports during second term of every academic year and the winners are felicitated by giving certificates and trophies.

**Indoor Games and Outdoor Games:** The institute has playground for outdoor games, having 13226 sq. m area. It is established in year 2002 and augmented time to time with addition of more games. The playground has facilities for various sports like Cricket, Volleyball, Football, Kabaddi, Kho- Kho etc. The institute has separate facility for various indoor games like Chess, Table tennis, Carom, Badminton, etc. Indoor games facility such as carom, chess and badminton are also provided in hostels.

**Gymnasium:** The institute has a well-equipped gymnasium of 187 sq. m. area, established in 2012. Equipments such as Peck Deck Machine, Chest press machine, Incline.Decline Bench, Gymnasium Bike, Dumbbells, Plate, Barbells, Weight Lifting Bars, Single Bar, Double Bar, Dip Stand, Dumbbell Plate Stand etc. are available in the Gymnasium. Students utilize these facilities to keep themselves physically fit.

**Yoga Hall:** The institute has a yoga hall of 187 sq. m. area established in 2012. Students perform various yoga activities in this yoga hall. Every year National Yoga Day is celebrated on 21st June.

**Cultural Activities:** The institute has an open air-auditorium of 1944 sq.m. area with good landscaping and ample seating capacity. Every year the institute organizes annual social gathering "**Vasant Utsav**" for the students in this open air-auditorium. Students avail this opportunity to explore their talent in Singing, Dancing, Drama, Fashion Show etc.

In addition to the open air-auditorium, the institute has three seminar halls for organizing various activities like Chhatrapati Shivaji Maharaj Jayanti, Bharat Ratna Dr. Babasaheb Ambedkar Jayanti etc. The institute also has five departmental seminar rooms for conducting various departmental level activities. In order to motivate the students and to organize cultural activities, the institute has constituted cultural committee that includes faculty members from various departments. The committee conducts meeting regularly for the smooth conduction of cultural events and the institute sanctions budget for various cultural events. The students of the institute have represented at Zonal level cultural events.

.

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

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

Answer: 89.13

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Answer: 41

File Description	Document
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	View Document
Upload any additional information	View Document
Paste link for additional information	View Document

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

# Answer: 8.5

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

Answer:

65.81	55.08	63.13	77.66	21.82
6. 01	<b></b> 00	(2.12		<b>a</b> 1 0 <b>a</b>
2020-21	2019-20	2018-19	2017-18	2016-17

File Description	Document
Upload Details of budget allocation, excluding salary during the last five years (Data Template)	View Document
Upload audited utilization statements	View Document
Upload any additional information	View Document

# 4.2 Library as a Learning Resource

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

# Answer:

The library has 1251 square meters built up area. It is centrally air cooled, well furnished, spacious and ventilated with separate reading rooms for boys, girls, staff and PG students with a capacity of 300 readers. It has six sections: Stack Section, Reference Section, Periodical section, SC/ST Book Bank section, E-Library and Reading Room. The library is provided with CCTV Surveillance. It is a rich library with 64196 volumes, 13635 titles, and 2023 back volumes and 2822 SC/ST book volumes along with general library books. The Library also subscribes National and International journals and more than 4000 e-journals. The central library maintains required books for the preparation of competitive exams like GATE, GRE, TOEFL and MPSC/UPSC examinations.

The Central Library had been fully automated using Software for University Libraries (SOUL) Version 2.0, and is in use since 2003-04. The automation is useful to improve and streamline the library operations in a more effective and efficient manner. The Library follows open access system encouraging the user to browse freely in the stack area. One separate node (KIOSK Machine) is made available for Online Public Access Catalogue (OPAC) facility. User can search the library collection by giving Title, Author, and Class Number. New arrivals of books and journals are displayed on separate stands and racks.

The library organizes regular User Orientation Programs for the user's to use the Library Sources and Services, every academic year for newly admitted students.

Integrated Library Management System (ILMS) SOUL 2.0 consists of the different modules; each module further has been divided into sub-modules to cater its functional requirements:

# 1. Acquisition

This enables library staff to handle all the major functions, such as Suggestions Management; Order Processing, Cancellation and Reminders; Receipt, Payment and Budgetary control; Master files such as Currency, Vendors, Publishers etc.

# 2. Catalogue

This module is used for retrospective conversion of library resources. It also facilitates library staff to process, the newly acquired library resources.

# 3. Circulation

This module takes care of all possible functions of circulation, it also cares membership management, maintenance and status of library items, transaction, Inter Library Loan, overdue charges, renewals & reminders, search status and report generation according to the status of the items.

# 4. OPAC

One of the major attractions of SOUL is its robust On-line Public Access Catalogue (OPAC). The OPAC has simple and advanced search facility with the minimum information for each item including author, title, corporate body, conference name, subject headings, keywords, class number, series name, accession number or combination of any of two or more information regarding the item.

# 5. Serial Control

Managing serials is the most complicated job for a library. The module keeps track of serials in the library effectively and efficiently.

# 6. Administration

For accommodating requirements of library staff, the SOUL 2.0 is having additional features such as User Management, System Parameters and Masters which helps to perform ILMS effectively.

.

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

4.2.2 The institution has subscription for the following e-resources

- 1. e-journals
- 2. e-ShodhSindhu
- 3. Shodhganga Membership
- 4. e-books
- 5. Databases
- 6. Remote access to e-resources

Answer: A. Any 4 or more of the above

File Description	Document
Upload any additional information	View Document
Details of subscriptions like e-journals, e-ShodhSindhu, Shodhganga Membership , Remote access to library resources, Web interface etc (Data Template)	View Document

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

# **Answer:** 6.19

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

Answer:

2020-21 2019-20 2018-19 2017-18 2016-17

# 1.54 4.38 3.22 9.30 12.52

File Description	Document
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the last five years (Data Template)	View Document
Audited statements of accounts	View Document
Any additional information	View Document

4.2.4 Percentage per day usage of library by teachers and students (foot falls and login data for online access) during the last completed academic year

# **Answer: 3.57**

4.2.4.1 Number of teachers and students using library per day over last one year

Answer: 89

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

**4.3 IT Infrastructure** 

4.3.1 Institution frequently updates its IT facilities including Wi-Fi

# Answer:

In view of the changing trends in digital era, the institute has been updating its IT infrastructure with recent technologies. The server room of the institute is well equipped and well furnished with safety measures and power backup. The rack mounted central switch in the server cabin provides internet connectivity to all corners of the campus through Next Generation Firewall. All corners of the campus are connected through optical fiber cables to provide Internet access through wired/wireless technology. Internet access is made available at all desktop computers in the campus. The campus is also Wi-Fi enabled for Internet access through portable devices. The Next Generation Firewall provides secured authentication for secure Internet access. The secured Internet access enables students and staff to access learning resources anytime anywhere in the campus.

The IT infrastructure of the institution includes the facility of desktop computers, LAN, Wi-Fi, Internet, MOODLE as Learning Management System, Portal for interdisciplinary elective subject choice submission, Online admission portal etc. The IT infrastructure is well maintained by hardware engineers and technical supporting staff.

IT infrastructure of the institution is upgraded from time to time to deliver the best computational IT infrastructure to the students. The IT infrastructure includes Optical Fiber Cables of 6.2 km connecting various departments and sections; Internet leased line connection of 100 Mbps bandwidth; 60 access points for wi-fi connectivity; 27 network switches; 23 network racks; 987 desktop computers providing the internet facility; licensed products under Microsoft Edu-Cloud, 38 ICT-enabled class rooms and computer center. In addition to this, there are fire extinguishers and CC camera surveillance equipment for safety purpose and overall management.

The institution has setup Modular Object-Oriented Dynamic Learning Environment (MOODLE) as Learning Management System (LMS). In order to make information more available, the institute has also setup Digital Library as digital repository of project reports and research publications.

The institute has developed portal for students to submit choices for interdisciplinary elective subject, and also online admission portal to facilitate students to complete the formalities of admission. The institution has also successfully facilitated for Onscreen Evaluation of answer papers of K.B.C North Maharashtra University, Jalgaon.

Time to time upgradation of IT infrastructure facilities are mentioned below: -

- Internet Bandwidth (Leased Line) -
  - 60 MBPS in 2016-17
  - 100 MBPS in 2018-19
- Internet/Wi-Fi Availability The institute has procured 25 wireless access points in last five years to provide internet facility covering most of the area such as laboratories of various departments, smart class rooms, central library, office, hostels, staff quarters etc.

- Security arrangement –FG-200FFortinet UTM Firewall device is procured in 2021 to provide secured internet access. In addition to this, antivirus software is used to prevent computers from viruses/malwares.
- Computers The institute has procured 100 desktop computers in 2021 with latest configuration.

.

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

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

# **Answer:** 2.86

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

# 4.3.3 Bandwidth of internet connection in the Institution

# **Answer:** A. ≥50 MBPS

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

# 4.4 Maintenance of Campus Infrastructure

4.4.1 Average percentage of expenditure incurred on maintenance of infrastructure (physical and academic support facilities) excluding salary component during the last five years(INR in Lakhs)

**Answer:** 54.82

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)

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
263.68	338.92	397.45	403.55	488.18

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

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

# Answer:

The institute has a state of art infrastructural facility that provides conducive environment not only for students learning but also for overall development of students. The institute has established systems and procedures for maintenance and utilization of physical, academic and support facilities.

Cleanliness and safety are among the top most priorities of the institute. Cleanliness of the campus and other infrastructural facilities is carried out under the supervision of caretaker. Sweepers/peons carry out cleaning of class

rooms, laboratories, departments, library, office, hostels etc. regularly. Institute ensures clean environment by keeping dustbins at every corner and collecting trash regularly. During pandemic, sanitization being the most important to maintain hygiene, the institute followed all guidelines to prevent COVID - 19 for the safety of students and staff in the campus. Fire safety being another important safety measures, the institute always ensures that the fire extinguishers in the laboratories and other important places in the campus are fully operational.

The institute pays due attention towards maintenance and up keeping of laboratory equipments. To maximizing equipment uptime the institute follows preventive maintenance and corrective maintenance strategy. And sole responsibility of such maintenance lies on the technical staff / lab assistants. Log books / maintenance registers are maintained that reflects the usage and maintenance history of the equipments. In case of breakdown the technical staff / lab assistants evaluate the equipments and accordingly submit initial cost estimates for consumable components / parts, if any. After approval the maintenance work is carried out either by technical staff / lab assistants or by skilled venders. The institute invites quotations for the required consumable components/parts and maintenance by skilled venders, and accordingly order for the same is placed. For monitoring the up keeping of equipments, the institute conducts stock verification of laboratory equipments every year. If any equipment is reported as not working in the verification report then the concerned technical staff / lab assistant undertakes maintenance of the same.

The institute has adequate IT infrastructure. The institute has dedicated hardware engineers for the up keeping of desktop computers, printers, network and other peripherals. They are also responsible for up keeping of necessary software for academic and administrative support. In case of breakdown, same procedure is followed as that for the other equipments.

The institute has dedicated electrical installations such as transformer, DG set and PV Solar Roof top power plant etc. The preventive and corrective maintenance of these electrical installations are carried out as per manufacturer guidelines. In case of breakdown, same procedure is followed as that for the other equipments. Further, regular maintenance of electricity supply to all electrical / electronic equipments / devices are carried out by dedicated electricians.

Infrastructure is the heart of the institute and so as its maintenance. Infrastructure maintenance is carried out by a team that includes site engineer, care taker and dedicated staff. The team undertakes and monitors various activities viz. construction activities, renovations, repairs, water supply, sanitation, waste disposal, cleaning of building and surroundings etc. Further, along with site engineer additional members are deputed to carry out specific work as and when required. Moreover, the skilled manpower of workshop provides necessary services for maintenance as and when required.

The institute has well equipped central workshop for the students. Preventive maintenance of equipments /machineries in the workshop is carried out regularly, in every six months. It includes oiling, greasing and cleaning etc. In case of break down, same procedure is followed as that for the other equipments.

The institute has well equipped central library with conventional library and digital library. The librarian and staff look into the proper, smooth and efficient functioning of the library. It includes keeping up to date records of books circulation, ensuring return of books from students, maintaining log books of faculty and students. It also includes the proper arrangement of books on the racks, arrangement of journals and magazines in the respective section. Up keeping of books i.e. binding etc. are taken care by the library staff. Every year, stock verification of library is carried out through a committee. The committee accordingly prepares a report which includes number of books available, number of books written off, and number of books in torn condition. The books in torn condition are kept separate.

The institute has playground for outdoor games, having 13226 sq.m area and well-equipped gymnasium of 187 sq. m. area. Maintenance of play ground and up keeping of equipments in gymnasium are taken care by Physical Director. The campus has lush green lawn and garden. Dedicated trained gardeners take care of up keeping of lawn and garden. The institute has waste water recycling plant of 100 m3/day capacity that helps to maintain the lawn and garden green & live throughout the year.

Since the institute is 7 km away from the city, the institute has SIX buses that ply regularly as transport facility for the students. Maintenance of these buses are taken care by vehicle in-charge through dedicated & skilled drivers. They also maintain vehicle records like registration, PUC, daily ply records etc.

The campus houses boys hostels and as well girls hostels. Maintenance & up keeping of facilities in the hostels are taken care by the respective rector. Regular maintenance in these hostels is carried out by workshop staff, site engineer and electricians as and when required as per the request by rectors. In case of any break down, same procedure is followed as that for the other equipments.

.

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

# **5.Student Support and Progression**

# 5.1 Student Support

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

**Answer:** 75.86

5.1.1.1 Number of students benefited by scholarships and freeships provided by the Government year-wise during last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
1933	2000	2128	1642	2265

File Description	Document
upload self attested letter with the list of students sanctioned scholarship	View Document
Upload any additional information Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years (Data Template)	View Document

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

**Answer:** 2.86

# 5.1.2.1 Total number of students benefited by scholarships, freeships, etc provided by the institution / non-government agencies year-wise during last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
86	82	98	58	44

File Description	Document
Upload any additional information	View Document
Number of students benefited by scholarships and freeships institution / non- government agencies in last 5 years (Date Template)	View Document

5.1.3 Capacity building and skills enhancement initiatives taken by the institution include the following

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

Answer: A. All of the above

File Description	Document
Details of capability building and skills enhancement initiatives (Data Template)	View Document
Any additional information	View Document

View Document

5.1.4 Average percentage of students benefitted by guidance for competitive examinations and career counselling offered by the Institution during the last five years

**Answer:** 17.9

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

Answer:

2020-212019-202018-192017-182016-17341449662468436

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

5.1.5 The Institution has a transparent mechanism for timely 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

# Answer: A. All of the above

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

# 5.2 Student Progression

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

**Answer:** 25.12

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

Answer:

2020-21 162	2019-20 201	2018-19 265	2017-18 229	2016-17 104		
File Description						Document
Upload any additional information					View Document	
Self attested list of students placed					View Document	
Details of student placement during the last five years (Data Template)					View Document	

5.2.2 Average percentage of students progressing to higher education during the last five years

# 5.2.2.1 Number of outgoing student progression to higher education during last five years

Answer: 104

File Description	Document
Upload supporting data for student/alumni	View Document
Details of student progression to higher education (Data Template)	View Document

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

Answer: 82.71

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

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
7	7	10	11	7

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

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
8	10	14	13	7

File Description	Document
Upload supporting data for the same	View Document
Number of students qualifying in state/ national/ international level examinations during the last five years (Data Template)	View Document

# **5.3 Student Participation and Activities**

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

Answer: 83

5.3.1.1 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) year-wise during the last five years.

2020-21       2019-20       2018-19       2017-18       2016-17         00       21       22       20       20         File Description       Document	Answer:					
File Description         Document						
	File Description				Document	

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

5.3.2 Institution facilitates students' representation and engagement in various administrative, co-curricular and extracurricular activities following duly established processes and norms (student council, students representation on various bodies)

# Answer:

Institute is committed towards holistic development of students and offer avenues to improve self-confidence by practicing important habits like time management, problem solving, leadership, etc as per the established processes & norms set by Kavayitri Bahinabai Chaudhari North Maharashtra University (KBC NMU), State and Central Government Authorities.

Student Council election procedure for the academic year 2017-18 carried out as per the guidelines of Director, Student's Welfare, KBC NMU Jalgaon and our student Ms. Bari Sampada elected as Secretary, Student's Council.

Students are encouraged to actively participate at various administrative levels through their representation in Internal Quality Assurance Cell, Grievance Redressal Committee and Anti Ragging Committee for contributing towards development of Institute and Society.

The students in the role of coordinator's, committee members, and representatives at institute level committees like Sports, Cultural, and National Social Service are keys to empower the budding professionals.

The Social welfare/ awareness program, Blood Donation Camps, Tree Plantation, etc. impart values like societal development and Expert Lectures, Workshops, Seminars, Project Exhibition, Paper & Poster Presentation help the students to apply academic skills in the real world context.

Institute has Departmental Student Associations, Energy Club, Nature's Club, Robo Club, student Chapter of Indian Society for Technical Education, Indian Society of Heating, Refrigerating and Air Conditioning Engineers and Solar Energy Society of India in which students organize various events / activities under the guidance of Faculty Convenors /Coordinators of the Club.

The Technical & Professional skill improvement through student participation in technical competitions inculcates mutual understanding & multi-disciplinary approach. Also Institute provides facilities like financial assistance for student's participation in ROBOCON, BATASAE, DIPEX, Project Exhibition, etc.

Institute preserves National culture, heritage and promote student participation in various National Days, Events Celebration & encourage students to participate in Annual Gathering VASANT UTSAV, Yuvarang imparting positive behaviour and team work leading sense of belonging among them.

Team work and Respect are the skills learnt through participating in Sports. Institute provides all facilities for Indoor and Outdoor Sports, Events/ Competitions, and students of the Institute actively participate & are excelling at University & National Level Sports Events.

.

File Description	Document
Upload any additional information	View Document

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

# **Answer:** 66.8

5.3.3.1 Number of sports and cultural events/competitions in which students of the Institution participated yearwise during last five years Answer:

2020 21

2020-21	2019-20	2018-19	2017-18	2016-17		
8	106	78	73	69		
File Description					Docume	nt
Upload ar	ny additional	l information	n		View Document	
Report of	Report of the event			View Document		
Number of sports and cultural events/competitions in which students of the Institution participated during last five years (organised by the institution/other institutions (Data Template)				View Document		

5.4 Alumni Engagement

2010 20

2010 10

0017 10

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

#### Answer:

Shram Sadhana Bombay Trust's College of Engineering & Technology, Jalgaon has well connected network of its Alumni. The alumni support the institution and contribute to its institutional and academic development. Every year Alumni meet is arranged in the campus, to bring together all the old students to share their experiences with faculty. The alumni actively participate in the alumni meet and share their experiences. The alumni are also taking active participation in curriculum development and syllabus framing through interaction. The alumni regularly visit the campus during weekends and participate in knowledge sharing activities which would help current students to decide proper career options either to go with the placement opportunity or choose higher studies or to take the path of startup journey (entrepreneurship). Such talks/training and Hands-on sessions by the alumni to the students which are regularly arranged in every department, help students to identify their career path by enhancing the required aptitude in their respective domain. The Alumni also actively involve and support the student on placement opportunities and in pre-placement in training so as to build the necessary skills/training based on recent technology and scenario. They also advice students on the importance of Internships in Industry and how to approach the industry for seeking an internship.

The network of alumni is very well active on social media such as linkden, Facebook, Whatsapp etc. The institute alumni coordinator, head of department and all faculties are very well connected to the alumni through these platforms. In the Covid-19 pandemic the alumni association has organized online live face book lecture series of the eminent alumni to update themselves to various new technologies and career guidance. The alumni association paves way for the present students to have informal meets and interactions with the alumni which motivates and channelizes their concentration in various areas of knowledge and skills that need to be improved or enhanced.

.

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

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

#### Answer: E. <1 Lakhs

File Description	Document
Upload any additional information	View Document

#### 6.Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1 The governance of the institution is reflective of and in tune with the vision and mission of the institution

#### Answer:

The Vision of the institute is, "Today we carry the flame of quality education, knowledge and progressive technology for global societal development; tomorrow the flame will glow even brighter".

The Mission of the institute is, "To provide conducive environment for preparing competent, value added and patriotic engineers of integrity of par excellence to meet global standards for societal development".

In line with objectives of Shram Sadhana Trust Bombay, the institute is established in 1983 to impart education. Since inception, the institute has carried the flame of quality education in this region and is reflective in the number of students admitted. The Governing Body (GB), constituted as per AICTE guidelines, is the apex body of the institute and decisions taken by the body are in tune with Vision and Mission. Various decisions, may it be related to infrastructure, human resources, facilities, taken by the GB have been progressive in imparting quality education for societal development.

As part of mission of the institute, the institute believes in conducive environment through due representation of stake holders at various levels of governance. The institute has constituted College Development Committee (CDC) as per the guidelines of University. The GB and CDC are instrumental for effective and smooth implementation of plans and decisions taken on admissions, budget, infrastructure, Teaching-Learning and Placements. Involvement and contribution of faculty members and staff through various academic and administrative committees reflect the participatory nature of governance. Senior faculty members in the role of Directors are also involved in the decision making of the institution.

The institute prepares perspective plan and keeps updating time-to-time as per need. The plan is approved by CDC and GB for implementation. The perspective plan from year 2016 to 2021 includes implement Rain Water Harvesting system, conduct courses under Training & Placement Cell, to start Research Lab, approve the students Innovation Project Funding Scheme, approve the design of 100 KWP Solar Power Plant to be installed on the Roof Top of front building, install Lift, organize Training on Work Culture for Non Teaching Staff, sponsor Robocon 2018 (National Level Robotic Competition), apply for PMKVY-T 1 (Pradhan Mantri Kaushal Vikas Yojana), Renew Research Laboratories, purchase equipments & furniture, sanction the budget for Training (M/s Treezee E Solution), organize International Conference on Global Trends in Science & Technology, implement Health Insurance Policy for Non Teaching Staff, start self financing NSS Unit, apply for NBA and NAAC, Renewal of Microsoft Campus Agreement, Renewal of Internet leased line Connection, To start incubation centre at departmental level of Chemical Engineering and Biotechnology and Computer Engineering, apply for B.Voc courses under National Skills Qualification Framework (NSQF), construct sports office, Renewal of Recognition of Post Graduate Research Labs in Computer Engineering, E&TC Engineering and Mechanical Engineering.

.

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

# 6.1.2 The effective leadership is visible in various institutional practices such as decentralization and participative management

#### Answer:

Effective leadership is essential for the growth and development of any organization. The institute has very dynamic and effective leadership in the form of management. Under their able guidance, the institute has grown by leaps and bounds. As decentralization and participative management, the institute has Governing Body (GB), College Development Committee (CDC), Principal, Vice Principal, Director (Academics), Director (Administration), Director (Technical Development), Director (Research and Development), Training and Placement Officer and Head of Departments (HODs).

The GB and CDC are constituted in accordance with the guidelines of AICTE. These bodies, and so as Principal, Vice Principal, Directors and HoDs, play pivotal role to accomplish the Vision and Mission of the institute. Regular meetings of these members are held for effective and smooth functioning of the institute. Principal being the leader of the institute not only provides the direction but also instrumental for consultative decision making. Regular meetings and consultative-decision-making give thrust to the growth of institute. Further, Assistant Registrar (Finance) and Registrar of the institute are also involved in the consultative decision making for the effective and smooth functioning. All HoD's are responsible for day to day administration of their department and timely reporting to Principal. Institute is also having various feedback mechanisms through which stakeholders can participate and can share their views, ideas, opinions or suggestions.

The institute always promotes culture of participative management. Institute has constituted various committees / bodies that have faculty representation like GB, CDC etc. Such representations ensure better understanding among all and smooth functioning of the institute. As member of committees, all faculty & staff members energetically

participate in implementing the policies, procedures, and framework designed by the management in order to maintain and achieve the quality standards, vision and mission of the institute. Various committees constituted by the institute are Academics & Examination Committee, Proctorial Board and Students Grievance Redressal Committee, Time Table Committee, Library Committee, Cultural Activity Committee, Sports Committee, ISTE Students Chapter & IE (I) Committee, Training and Placement Activity, Alumni Coordination Committee, Website Committee, Computer Network and Internet Committee, Parents meet committee, Campus development committee, Hostel Committee, Women's Grievance Redressal Committee, Anti Ragging Committee, Anti Ragging Squad (Boy's and Girls Hostel).

Thus decentralization has shown a significant impact on the policy making, planning and management with reference to the engineering education.

.

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

## 6.2 Strategy Development and Deployment 6.2.1 The institutional Strategic / Perspective plan is effectively deployed

# Answer:

# **On Grid PV Solar Rooftop Power Plant**

In present times, the world has been adopting renewable power at a rapid rate. India is also emerging in the global arena as a leading generator of renewable energy. In its efforts to move further towards sustainable development. The primary objective for deploying renewable energy is to advance economic development, improve energy security, improve access to energy, and mitigate climate change. One of the biggest advantages of rooftop solar panels is that they can be installed on any type of roof. So, it doesn't need to vacate a land or invest in buying additional land to set up rooftop solar panels. Furthermore, the panels offer protection to the roof of the building in which they are installed.

As an effort towards sustainable development, the institute has decided to install PV Solar on Grid Rooftop Power Plant in the campus. All necessary permissions and approvals were obtained from government and distribution licensee (MSEDCL) to connect grid interactive PV Solar plant.

The institute installed 295kWpPV Solar on Grid Rooftop Power Plant at campus in three stages.

- 1. Stage –I 100 kWp PV Solar On Grid Rooftop Power Plant.
- 2. Stage –II 95 kWp PV Solar On Grid Rooftop Power Plant.
- 3. Stage –III 100 kWp PV Solar On Grid Rooftop Power Plant.

Sr.	Power Plant Capacity	Purchase Order	Bills	Permission and approval	Commissioned	Cost of Plant in Rs.
1	100 kWp Linder	COET/1090/07/17 dated 25/07/2017	25081/100012 dated	m/Roonop Solar /	25th March 2018	35,00,000/-
2	I	681/11/18 dated	2019/103 dated 29/03/2019	SE/ JLG/T-III/ Rooftop Solar/4729 dated 7/08/2018	24th Aug 2019	43,70,000/-
3	100kWp	COET/SE/6 25/10/20 dated 23/10/2020		SE/ JLG/T-III/ Rooftop Solar/01347 dated 02/03/2021		40,00,000/-
Project Cost in Rs						1,18,70000/-
Revenue Generation (Saving in Electricity Bill) per annum per 100kWp plant						16,00,000/-
Estimated Payback period in year						2.5 to 3
Total Energy Generated by Solar Plant till March 2021					638146 kWh	
Revenue Generation by Solar Plant till March 2021					Rs	

 File Description
 Document

 Upload any additional information
 View Document

 strategic Plan and deployment documents on the website
 View Document

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

# Answer:

**Shrama Sadhana Bombay Trust:-** The institute is run by Shrama Sadhana Bombay Trust registered under Bombay Public Trust Act, 1950 and its registration No. is E 6942 & was formed on 12/10/1978.

**Governing Body (GB):-** GB of the institute is constituted as recommended by AICTE's Approval Process Handbook. Its Chairman is nominated by the Trust. GB is collectively responsible for overseeing the institution's activities and determining its future direction and fostering an environment in which the institutional vision & mission is achieved.

**College Development Committee (CDC):** College Development Committee is constituted as per section 97(1) of Maharashtra Public University Act, 2016. The CDC shall be responsible for Preparation of overall comprehensive development plan of the institute regarding academic, administrative and Infrastructural growth.

**Principal:** The Principal is a Head of Institute. He acts as the Member Secretary of Governing Body and College Development Committee.

**The Major responsibilities of Principal are as follows:** (a) Academic growth of the institute. (b) Participation in the teaching work, research, and training programmes of the institute. (c) Assisting in planning and implementation of academic programmes. (d) Any other work relating to the institute as may be assigned to him by the Competent Authority from time to time.

# Vice Principal

Major Duties & Responsibilities of Vice Principal are as under:

1) To maintain and update the academic excellence of the institute.

2) To enhance and improve the activities such as (i) R & D, Consultancy Activities (ii) NIRF Ranking (iii) Training & Placement

3) To monitor the implementation of various policies/activities of AICTE/UGC/KBCNMU etc. assigned to the concerned staff.

**Director of Administration** The nature of the duties of Director of Administration is to control & regulate administration activities of teaching & non teaching staff and to improve the overall ambience of institute in its totality.

**Director of Academic Development** The nature of the duties of Director- Academic Development is to regulate and control the day to day academic activities and improve the academics.

**Director of Research & Development** The nature of the duties of Director-R & D is to enhance the research and development activities of the institute.

**Director of Technical Development** The nature of the duties of Director- Technical Development is to oversee all aspects of IT operations including Networking and Systems Infrastructure, ERP Maintenance and Support, overall management of website and intranet.

**HODs** (Head of Departments) Major Responsibilities of HODs are as under: (a) Academic growth of the Department. (b) Participation in the teaching work, research, and training programmes of the department. (c) Assisting in planning and implementation of academic programmes such as orientation courses, seminars, and other training programmes organized by the department for academic competence of the Faculty Members. (d) Any other work related to the University/Department/College as may be assigned to by the Competent Authority from time to time.

.

File Description	Document
Upload any additional information	View Document
Link to Organogram of the Institution webpage	View Document

6.2.3 Implementation of e-governance in areas of operation

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

#### Answer: A. All of the above

File Description	Document
Screen shots of user interfaces	View Document
ERP (Enterprise Resource Planning) Document	View Document
Details of implementation of e-governance in areas of operation, Administration etc	View Document
Any additional information	View Document

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

## 6.3.1 The institution has effective welfare measures for teaching and non-teaching staff

#### Answer:

The progress of any organization depends on its employees. For the betterment of its employees, the institute has various welfare schemes for teaching and non-teaching staff. The institute believes that one can give his/her best when he/she is happy with work and this in turn has a positive impact on the student community.

#### 1) Welfare schemes for Teaching staff:-

# • Sponsorship Fee Reimbursement for STTP/Workshop/Paper Publication etc.:-

The institute encourages its teachers in acquiring the latest skills by deputing them for various programs/conferences and reimbursing the registration fees.

#### • Leaves for Higher studies:-

In order to keep pace with the latest trends in education the institute encourages the teachers by providing special leaves to pursue higher studies.

#### • Empowering teachers with personal computation facility:-

The institute provides Desktops & Wi-fi to every faculty and encourages them to use modern teaching aids to improve productivity.

#### 2) Welfare schemes for Non-Teaching Staff

- Special training, such us Work ethics and Computer Skills, to enhance productivity.
- Encashment of Earned Leave:- The Earned Leave is encashed to non-teaching staff upon their retirement.
- Salary Advance:- The institute provides Salary advance in case of need.

#### 3) General welfare schemes for all staff.

- Leaves:- The institute provides leaves to facilitate all it employees such as Casual Leave, Special Leave, Maternity Leave, Medical Leave & Earned Leave.
- Employee Provident Fund:- The institute provides the facility of Employee Provident Fund (EPF) to all its employees.
- Gratuity:- Gratuity is provided to eligible members upon their retirement.

- In Campus Medical Assistance:- The institute has appointed one Male Doctor & One Female Doctor for In Campus Medical Assistance
- Group saving link insurance:- Group Saving Link Insurance is provided to all the Permanent staff members.

.

File Description	Document
Upload any additional information	View Document

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

# **Answer:** 6.52

# 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

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17	
0	08	15	12	14	

File Description	Document
Upload any additional information	View Document
Details of teachers provided with financial support to attend conference, workshops etc during the last five years	View Document

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

Answer: 4.4

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

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
9	5	2	3	3

File Description	Document
Upload any additional information	View Document
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff	View Document

6.3.4 Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP) during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course ).

**Answer:** 29.21

6.3.4.1 Total number of teachers attending professional development Programmes viz., Orientation / Induction Programme, Refresher Course, Short Term Course year-wise during the last five years

2019-20 2016-17 2020-21 2018-19 2017-18

46	63	17	33	40	
		File D	escription		Document
Upload any additional information				View Document	
Details of teachers attending professional development programmes during the last five years				View Document	

6.3.5 Institutions Performance Appraisal System for teaching and non-teaching staff

#### Answer:

Institute has designed performance appraisal form to capture and evaluate performance of the Teaching and Non Teaching Staff. The Institute believes that, an effective performance appraisal system is important for optimizing the contribution of individual teaching and non teaching staff. It aims at self growth in terms of both personal and professional development of the employee which directly impacts the success of the students. The performance appraisal system is based on stipulated criteria and parameters that are to be fulfilled. The performance appraisal is being assessed annually based on the submission of 360 Feedback form by teaching staff and Evaluation form by non teaching staff on various indexed parameters.

# **Teaching Staff**

The primary key performance area for Teaching Staff includes Part A, Part B, Part C & Part D.

Part A includes (Max Point 90)

- Individual details
- Teaching Process
- Students feedback
- Departmental activities
- Institutional activities
- · Contribution to Society

Part B includes

- Faculty participation in academic staff college orientation / refresher Course / National / International Conference / workshop attended during the year
- Published papers in Journals / Conferences
- Published Books as Reference / Text Book
- Research Projects (UGC / DST / AICTE etc)
- Research Guidance (Ph.D) which includes Number of candidates completed Ph.D and Number of candidates pursuing Ph.D
- Invited / Contributed as Resource Persons
- Any Other

Part C includes Annual Confidential Report to be filled by the Principal (Max Points 10)

The Grade / Credit Point is given by Principal on the following criteria

Credit Point	Criteria
10	Extraordinary
9	Excellent
8	Very Good
7	Good
5	Satisfactory

Part D includes summary which includes

Summary	Academic Year
Teaching Process (Max Points 25)	

Students feedback (Max Points 25)	
Departmental activities (Max Points 20)	
Institutional activities (Max Points 10)	
Contribution to Society (Max Points 10)	
Annual Confidential Report (ACR) (Max Points	
10)	
Total (Max Points 100)	

# **Non Teaching Staff**

The following factors are evaluated in the appraisal system for Non Teaching Staff

- Performance of Duties
- Initiative
- Attitude / Personal Qualities
- Instructional Skills
- Relationship with Students
- Any other

The evaluation form of non teaching staff is verified by immediate superior which may be HOD / Section In charge / Office Superintendent / Assistant Registrar / Registrar.

The outcome of the performance appraisal system is that, each teaching / non teaching staff becomes aware of self-weaknesses and tries to improve. Faculty members with major weaknesses are personally counseled by the Principal.

•			•

File Description	Document
Upload any additional information	View Document

# 6.4 Financial Management and Resource Mobilization 6.4.1 Institution conducts internal and external financial audits regularly

# Answer:

**External Audit**: Our External Auditor is M/s R.N.Khairnar & Company C.A., Jalgaon. The Audit firm quarterly verifies and submits yearly Audit report to the institute. The Audit report includes Income & Expenditure A/c, Balance Sheet, Depreciation schedule etc.

Financial Planning and Management is the foresight of the Institute. The institute has a robust Financial Management System. The Institute conducts regular audit by the authorized and recognized auditors. It may be noted that the state government pay the scholarship / freeship fees (through reimbursement) of all eligible students admitted in the institute. Thus the receipts are very transparent and known. All the expenditure incurred by the institute is maintained by the Accounts Section and duly submits to the auditor for verification. The institute maintains books of accounts on daily basis. The auditor audits the accounts on quarterly basis. The TDS is deducted and quarterly TDS returns are submitted. The institute also pays GST regularly and submits the monthly returns within time prescribed under GST Act. At the end of every quarter, the quarterly financial report is compared with previous year quarter and also with the budget prepared, and accordingly variance, if any, reported to the management.

The Institute has followed Mercantile (accrual) System of Accounting. The institute has a Finance committee. All the major purchasing is done through Finance committee. The Institute is registered under section 12 A of the Income Tax Act. The annual budget for Institute is prepared and proposed at the beginning of Financial Year for recurring and non-recurring potential income and expenditure involved for the year. The departmental budget proposal of the requirement are also prepared and submitted for approval of the Governing Body (G.B). Mobilization of funds in the Institute is through resources and funds as feasible.

At last, the consolidation of the findings of the Institution with Trust Central Office is completed and the Annual Returns are submitted to Income Tax Authorities, Registrar and Trust Office / Managing Trustee.

**Internal Audit**: The Internal Audit of transaction is done regularly by Accounts Officer. For certain minor expenses on daily basis the Accounts departments carry out Internal Audit. During the course of Internal Audit, all required

steps are taken to regularize the accounts and to obtain confirmation for the credit balances to collect documentary evidences.

Nature of Internal Audit work is as follows-

- To check Cash Book
- To check Stationary Stock Record of Store Section
- Bank Reconciliation Work
- Scrutinizes and verifies all Payments, Receipts and Journal vouchers of the transactions
- To keep ready Income & Expenditure A/c & Balance sheet.

.

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

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

#### Answer: 0

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

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17		
0	0	0	0	0		
File Description			cription	Document		
Details of Funds / Grants received from of the non-government bodies, individuals, Philanthropers during the last five years				View Document		

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

# Answer:

Institute has framed mechanism to monitor effective and efficient use of available financial resources for optimal utilization of resources.

The institute implements academic and non-academic reforms within their self-conceived development programs that focus on quality and relevance, resource mobilization greater institutional autonomy with accountability, research and equity. The receipts primarily are generated through the fees paid by students. The Institute has well-defined mechanism to examine effective utilization of available financial resources for the development of the academic processes and infrastructure development.

Every year the institutional budget is prepared by account section after studying estimated income & essential requirement of Institute and discussing with Principal and Finance committee members in to consideration of recurring and non- recurring expenditures. Accordingly all the administrative and academic heads are requested to submit the budget required for the subsequent financial year. Along with this all coordinators of different cells, viz., T&P Cell, R&D Cell, Student Cultural Activity Cell etc are also instructed to submit their budge through the Principal.

All the major financial decisions are taken by the Trustee's Governing Body (GB) and College Development Committee (CDC).

In case of inadequate funds, the management arranges the funds to meet out the expenditure. The management has never compromised on providing high quality engineering education with an affordable cost to students. Considering Environmental needs (Green Energy), during last 4-5 years the management had purchased 350 Kwp Grid Solar power plants. Such initiatives reflect the optimal utilization of resources. It clearly shows that the management has social commitment of serving the society and thus sincerely contributes to the mission of the state government and partnered in the progress of the state in a little manner empowering the young minds.

File Description	Document	
Upload any 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

#### Answer:

Internal Quality Assurance Cell (IQAC) focuses on initiating, planning and supervising activities that are essential to increase the quality of the education. IQAC plays vital role in maintaining quality standards in teaching, learning and evaluation. Among several initiatives taken by IQAC, two initiatives are as follows.

# 1. Result Benchmark and Analysis

IQAC of the institute strongly believes that the success of Institution depends on outstanding results. With the help of detail Result Analysis, institute identifies areas of strength and weakness in teaching & learning. As per suggestion by IQAC, institute has framed a comprehensive methodology of result analysis as follows-

- Minimum Passing Standard for each subject: Institute has set minimum passing percentage of each subject, i.e. more than University Average Passing Percent.
- Comparative Analysis of Institute with University and Previous Year Result: Institute comparatively analyzes results of each subject against University Passing Percentage for current and Previous Academic Year. This analysis helps to ascertain the incremental improvement in results.
- Comparative Analysis of Overall Passing Percentage (All Clear) of Institute with Other Institutes: This analysis helps to ascertain the rank of the Institute in the University region.
- Result Analysis highlights Toppers, Advanced Learners and Slow Learners: This analysis helps to identify the bright students so that institute can enrich their learning experience and overall development. In addition to this the list of slow learners helps Institute to provide special attention to their requirement to overcome their difficulties.

HOD and Class Teachers of every department prepares the detail Result Analysis after university result and submit it to Principal and Director (Academics) which is further discussed in HOD meeting with Principal, Vice Principal, Director (Academics) and in IQAC meeting. The management and IQAC take the appropriate actions in the form of counseling to faculty & students to improve the quality of education along with performance of students.

# 2. Student's & Faculty participation in NPTEL, Swayam Courses

The institute emphasizes not only on curriculum but also value added learning of students and faculty.

Systematic efforts are necessary to enhance employability of students through value added knowledge, training and grooming. Knowledge of Cutting Edge Technology, Interdisciplinary subjects along with lifelong self-learning ability is essential to enhance the employability of Students. It is also essential to promote the habit of keeping themselves updated with self-study.

By means of this, IQAC committee recognized the importance of the Swayam and NPTEL courses and accordingly established E-Learning and Training Cell under the supervision of Training & Placement Cell. This committee keeps track of new courses launched by Swayam and NPTEL and circulates the same among Faculty and Students.

Participation in Swayam and NPTEL courses not only improves the teaching ability of the faculty, but also enhances their ability to provide learning experiences to students beyond regular curriculum. Participation in Swayam and NPTEL courses not only enhances the knowledge of students but also helps them to develop their self lifelong learning habit.

As a result of this, Students and Faculty had actively participated and completed Swayam / NPTEL courses.

.

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

.

View Document

6.5.2 The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities

(For first cycle - Incremental improvements made for the preceding five years with regard to quality

For second and subsequent cycles - Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives )

# Answer:

# 1. Skill Enhancement Training Programme and Introduction of Career Oriented Certificate Courses

With an objective of overall development of students to enhance their skill sets and to make them employable, IQAC Cell emphasized to organize various training programmes. Accordingly a committee comprising three faculty members is constituted under Training and Placement Cell of the institute. The committee had organized skill enhancement training programs of two weeks for BE and MBA students on diversified topics such as Training Programme on IOT, Python for Data Science, Spoken English, Introduction to MATLAB and its application, Fearless Spoken English, Personality Development, Introduction to AUTOCAD etc. Due to such initiatives, student's skill sets and performance level have improved.

Similar to the conventional degree courses, the non-conventional degree courses also has the power to offer excellent job opportunities to students. Hence recognizing the importance of Career Oriented Courses and to provide the practical knowledge to students, IQAC proposed to start such courses in every department. Accordingly every department identified Job Oriented Courses suitable for students and framed the syllabus. The syllabus is submitted to University and approved. From year 2020-21, the institute started 11 courses such as Write and Speaks Communicative English, Nutrition and Diet Plan, Cosmetic Technology, Construction Techniques and Practices, Cyber Security, Energy Conservation and Management, Industrial Automation and Robotics, Advanced C, Product Design and Entrepreneurship, Retail Management, Quantitative Aptitude and Logical Reasoning etc. These courses include two theories and one practical based on current trends. Due to such courses, students got practical knowledge and their skill sets has increased.

# 2. Digital Education

Digital Education is a technique or method of learning which involves technology and digital devices. This is a new and broad technical sphere which helps any student to attain knowledge and gain information from any corner across the country. It is believed that Digital Education in India is the future of education and learning.Digital education is providing both teachers and students new opportunities to teach and learn thereby ensuring greater participation in the overall learning process. It also helps in enhancing technological skills of students. COVID-19 pandemic had briefly disrupted the education system in India. Since the 1st lockdown in March 2020, the Institute and IQAC focused on online delivery of lectures. All the faculty members and students quickly adapted the online delivery through Zoom, MSTeams and Cisco Webex etc.

In addition to this, institute has 38 class rooms and 03 Seminar Halls with ICT enabled facilities. For effective teaching and learning in each department one class room is provided with sophisticated ICT enabled facilities such as Wall-mounted Interactive LCD Projector, Duplex Projection Screen, Wi-Fi Access Point, Multimedia Speakers, Modular Wall-mounted cabinet for CPU, Keyboard and Mouse, PPT Presenter, Head Phone with Mike, Webcam.

.

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

6.5.3 Quality assurance initiatives of the institution include:

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

File Description	Document
Upload e-copies of the accreditations and certifications	View Document
Upload details of Quality assurance initiatives of the institution	View Document
Upload any additional information	View Document
Paste web link of Annual reports of Institution	View Document

# 7.Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

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

# Answer:

SSBT's College of Engineering AND Technology Bambhori Jalgaon sensitizes students and employees regarding gender equity and takes opportunities in keeping the social responsibility by organizing various activities. The institute promotes gender equity in admissions, recruitment, administrative functionality, academic activities, NSS activities, and extracurricular activities.

# Measures initiated by the institution for the promotion of gender equity during last five years:

- Self Finance NSS unit is started to encourage girl students and a women faculty member is appointed as in charge for the unit. Girls, as NSS volunteers are participating in various activities.
- Separate Women's Grievance Redressal Committee is established exclusively to encourage the girl students and the unit is successfully conducting various activities to serve the society.
- Girl'scommon rooms are provided in the campus with required facilities. Girl's hostels are provided with dispensary with lady doctor.
- Separate space is provided for girls in the central library and in the canteen to avoid inconvenience.
- The girl students are nominated as members of various committees at department, institute levels and the institute encourages their participation in various activities.
- During orientation programs and other events, awareness is created on gender equity among the students.
- The institute celebrates Women's day and presents success stories of famous women to inspire the girl students and to make them understand their potential.
- The institute has a policy of appreciating faculty without gender bias. Women faculties are nominated, based on their ability, as heads of the departments and conveners of various committees and discharging their duties efficiently.
- Institute has separate Hostel building facilities for girls and boys in premises.
- Campus and Hostels are guarded by well heighted compound walls.
- Rector for boy's Hostels and warden for ladies Hostel, are appointed for the care of students
- Campus is secured by Security guards round a clock at Hostel gates as well as at main gate.
- High-quality CCTV cameras are installed all over the campus to track the activity of every student which ensures safety in campus.
- Permission of rector is must to go out side campus, Hostel students provided gate pass card facility to visit outside the campus.
- Register is maintained which displays place name student visiting, in/out timings, phone numbers of students, at main gate of the institute.
- Senior staff members accompany the security at any time to help girl student in any case of emergencies in hostel premises.
- Hostel premises are supervised by rounds of senior staff members on different timings.
- Senior staff member is appointed as visitor in girls Hostel for any help of students.
- First aid box is available in departments and Hostel buildings.
- Sanitary napkins and Vending machine are available in Girl's hostel as well as in girls' common room.
- Institute provides well equipped High-Tec Gym in the campus for the safety of health of students.
- Contact numbers of rectors/police station /Grievance cell/Ant ragging committee faculty members are displayed in the institute,
- Fire extinguishers are installed at various places in the campus.

.

In

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

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

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

Answer: A. 4 or All of the above

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

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

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

#### Answer:

#### Solid waste management:

The institute has maintained a neat and clean ambience by a well designed and organized solid waste management system. Solid waste is segregated as degradable and non-degradable and are handed over to the concern authorities as a part of Swach Bharat initiative & clean and green campus. Each block and each floor is provided with dry waste collecting bins every day and collected, the same is transported to the concerned places and segregate and hand over to concern. It has dust bins installed at suitable locations everywhere. The dust bins have capacity to store for a week. Sufficient quantity of bins provided at wet waste prone areas like cafeteria, food courts and food processing along with daily collected vegetable waste, food waste is treated and converted into vermi compost and used the manure further to develop garden and plants growth in the campus. There are dustbins placed at specific points to prevent littering in the campus. The institute is striving to be a plastic free zone and making the campus ecofriendly and greenery to reduce global warming. The cartridges are refilled and re-used in the printers. They are emptied by specifically deployed employees. The waste is emptied into tractor trolley and is carried away from the campus. It is handed over to municipal authorities for disposal. The waste from various offices, laboratories, corridors, class rooms etc is also weekly removed and dumped into trolleys.

# Liquid waste management

Liquid waste is mainly the sewage coming out from hostels, messes, canteens, staff quarters and toilet blocks of the institute. The entire campus has two pipe systems in place. Here, sullage (liquid waste coming out from bathrooms and kitchen) and sewage (liquid waste coming out from latrine) are collected separately. The sewage is passed through septic tanks and soaks pits. It is relatively small in quantity. The sullage is treated in the indigenously designed sullage plant in the campus. The treated sullage is used for gardening purpose. It has been possible to maintain a lush green campus owing to this technology. The recycled water is utilized for plantation and garden area.

#### **E-waste management:**

The E-waste management has been given due focus and all Electronic goods are put to optimum use. The old computers are used by the instructor for demonstration purposes in the practical sessions. The ones which are unusable in any manner they are exchanged with new equipment in Exchange offer. UPS Batteries are recharged / repaired /

exchanged by the suppliers. The waste compact discs are used by students for decoration and Participation in competitions 'Best out of Waste' in various activity. Computers, printers and other equipment are donated to charitable organizations after a given period of usage. The main aim is to collect E-Waste and segregate the useful circuits and components and make it into useful products. Establishing E-Waste Collection Plant in future will help by providing employment to youth in the adopted villages.

.

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

7.1.4 Water conservation facilities available in the Institution:

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

#### Answer: A. Any 4 or all of the above

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

7.1.5 Green campus initiatives include:

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

Answer: C. 2 of the above

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

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

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

Answer: A. Any 4 or all of the above

File Description	Document

Reports on environment and energy audits submitted by the auditing agency	View Document
Certification by the auditing agency	View Document
Link for any other relevant information	View Document

7.1.7 The Institution has disabled-friendly, barrier free environment

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

Answer: A. Any 4 or all of the above

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

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

#### Answer:

SSBT's College of Engineering and Technology is always lead role in harmony, diversity, eradicate stereotypes, enhance self-esteem, encourage students to have a role of efforts and initiatives in providing an inclusive environment.

To achieve these objectives, courses like Constitution of India, Essence of Indian Traditional Knowledge, three weeks Orientation Programare incorporated as a small step to imbibe and inculcate these traits among the students.

Teachers deliver lectures with an acceptance and appreciation for different ideas, opinions, and learning styles of the students and make an earnest effort to understand the racial and cultural characteristics of students.

Along with curriculum, additional communication and soft skills classes are conducted to make the students from different backgrounds communicate effectively.

Women's Redressal cell aims at social protection, ensuring tolerance and harmony, reducing vulnerability, building human capital, empowering women and girls, cultural, regional inclusion.

Industrial visits expose students to the practical challenges and also make the students from different backgrounds adapt to one another to create a tolerance and harmony in the organization.

Every year national festivals and other events are conducted to emphasize the importance of tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities.

NSS and Unnat Bharat Abhiyan activities of our institution mitigate the socioeconomic diversities and progress them towards leading to a tolerant and harmonious living.

Cultural committee, through various clubs organizes plays, skits, competitions and invited lectures, educates the students and makes them aware of their social responsibilities and understand the implications of their actions. In cultural programs, traditions of various regions are respected.

Students are involved and encouraged to participate in various co-curricular and extracurricular activities to make them mingle with one another and share their opinions and disagreements in a harmonious manner.

The institute provides poor and merit scholarships as financial support and conducts aptitude and general knowledge classes for the interested students to help them for their competitive exams.

Central Library has a facility to issue books from Book Bank to students belonging to SC/ST communities supplied by the institute for the upliftment of the SC/ST students.

.

File Description	Document
Link for supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	View Document
Link for any other relevant information	View Document

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

#### Answer:

India is a democratic country with many languages, subcultures, religions and ethnic diversities but represents unity in diversity governed and guided by the Constitution irrespective of caste, religion, race sex.

SSBT'S College of engineering and technology sensitizes the students and the employees of the institution to the constitutional obligations about values, rights, duties and responsibilities of citizens which enables them to maintain conduct as a responsible citizen.

The vision of the institute is: 'Today we carry the flame of quality education, knowledge and progressive technology for global societal development; tomorrow the flame will glow even brighter'.

The institute hoists the flag during national festivals to inspire students and staff by instilling the qualities of freedom fighters and to emphasize the duties and responsibilities of citizens.

The students are inspired by conducting various programs based on culture, traditions, values, duties and responsibilities by inviting outside people. Competitions based on Rangoli and ancient technologies are conducted for students.

For intellectual, mental, physical and spiritual development of the students and staff, the institute conducts yoga, dance and music classes.

Institute establishes policies that reflect core values. Code of conduct is prepared for students and staff and they are encouraged to follow and maintain good conduct.

The institute curriculum is framed with the inclusion of mandatory courses like Constitution of India, Essence of Indian Traditional Knowledge. Three weeks Orientation Programs also carried out as a small step to inculcate constitutional obligations among the students.

Guest lectures of eminent personalities are arranged on ethics, values, duties and responsibilities and environment protection.

The institute organized awareness program on "Traffic rules and regulations" by Pioneer Automobiles and traffic DSP was invited to give guidelines to students on road safety and encouraging them to follow traffic rules responsibly.

Ethical Values, rights, duties and responsibilities of citizens are some of the topics that are enlisted in Elocution, Debates.

NSS activities of our institution designed considering Philanthropic initiatives that include donation of time or resources to government, charities and organizations at local, national levels to help victims during natural disasters.

The institute conducted awareness programs including rallies on plastics ban, cleanliness, Swachch Bharat etc. involving students.

On Orientation day and fresher's day, reputed persons from police department and legal cell authorities are invited to deliver talks on duties and responsibilities of citizens and consequences of ragging.

File Description	Document
Link for details of activities that inculcate values necessary to render students in to responsible citizens	View Document

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

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

#### Answer: A. All of the above

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

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

#### Answer:

In keeping with the Mission and Vision of the institute, that aims to inculcate values and nationalism amongst the students by celebrating the national/state festivals and birth anniversaries of great Indian personalities in the institute every year.

The celebration of all the days,

- Enhances students' sensitivities towards traditions and legacies and provides them a platform to learn different skills
- Makes them responsible citizens as they learn a few things about their duties and rights.
- Students become well aware of the need to conserve nature.

# **Republic Day and Independence Day:**

Every year the Institution celebrates Republic Day and Independence Day by hoisting the national flag at the auspicious hands of Chief Guest of the Programme.

# Gandhi Jayanthi :

Gandhi Jayanthi is celebrated in memory of the Father of the Nation, who devoted his whole life preaching Truth and following Ahimsa. The institute takes part in Swachh Bharat Abhiyan in the campus.

#### **Teachers Day:**

The Institution celebrates Teacher's Day commemorating the birthday of Dr. Sarvepalli Radhakrishnan, a great teacher. This Day is celebrated with zeal and fervour. This gives an opportunity to the students to know the worth of teachers as nation builders.

# **Engineer's Day:**

The organization celebrates Engineer's Day on 15th September to mark the birth anniversary of Sir MokshagundamVisvesvaraya by organizing various activities.

# **National Unity Day:**

National Unity day is celebrated on 31st October, the birth anniversary of Sardar Vallabhbhai Patel. All students and staff take a pledge of the National Unity.

# International Women's Day:

Lady Advisory Committee organizes Women's Day on 8th March for the girl students and female staff members in the institute and conducts various events and competitions.

# **National Voters Day:**

National Voters Day is celebrated every year on 25th January to spread awareness about the necessity and importance of voting and to encourage young generation towards the voting rights.

#### **International Yoga Day:**

International Yoga day is celebrated on 21st June every year on the campus. The sessions include orientation on Yoga, its mental and physical benefits and actual performance of some yoga asanas.

#### **National Pollution Day:**

The day aims to bring awareness to people about prevention of air, soil, noise, and water pollution.

#### **Constitution Day:**

Constitution Day is observed by giving oath of the Constitution to the students. This activity generates awareness about the importance of our constitution and our role as citizens of our country.

#### Safety Day:

Safety Day is observed to celebrate the foundation of the National Safety Council of India to raise awareness about safety measures and prevent misfortunes.

#### **National Education Day:**

National Education Day i.e 11th November, is an annual observance in India to commemorate the birth anniversary of MaulanaAbulKalam Azad, the first education minister of independent India.

#### Hindi Day:

Hindi Day celebration on 14 th September is significant as students reaffirm their commitment to this language.

.

File Description	Document
Link for Geotagged photographs of some of the events	View Document
Link for Annual report of the celebrations and commemorative events for the last five years	View Document

#### 7.2 Best Practices

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

Answer:

**Best Practice -I** 

# Value added and Skill Education

# **Objectives of the Practice**

To introduce students a new stage of learning and holistic approach, value added and skill education is vital for allround development. In line with mission of the institute, following are the objectives:

- To develop competent, value added and Patriotic Engineers of integrity
- To inculcate human values among students
- To enhance employability skills
- To aware students about team work, professional ethics and competitiveness

#### The context

Majority of the students admitted in our institute are from nearby rural areas and first generation learners. Most of them have been educated through Marathi medium schools and hence English language becomes a major constraint.Students' socio-economic condition also adversely affects their academic development, hence moulding them academically, professionally and intellectually such practices are integral part of our quality education mandate.

# The Practice

In Indian system of higher education, with the changing times thrust has been given on developing students' personality considering the aspects of all round development. The newly formed ministry of Skill Development and Entrepreneurship under Government of India is a welcome step in this regard. Education should prove not only a means for personal enrichment but also to be a platform for reducing social divide and uplifting everyone. It is important for undertaking serious efforts for creating a space for inculcating values among students and providing them training and expertise to develop their skills that are relevant and have utility value. Our institute has been taking consistent efforts in this regard.

The institute is committed to focus on the areas of value education and skill education for building students' lives. Through academics though the institute enhances technical skills, the institute has undertaken several initiatives to inculcate values among students.

The institute organizes activities like meditation and Yoga sessions, social work activities, motivational speeches, Blood Donation camps, Plant Distribution, Energy Conservation etc. to inculcate human values among students.

Meditation and Yoga helps students in creating health consciousness and building positive outlook, attitude and behaviour in their daily life. For newly admitted students institute organizes induction program wherein meditation and yoga are integral part. As succeeding and continuation of such practices, the institute arranges various sessions that helps to maintain as their habit.

Engineers are for the society. Social works help students to understand the need of humans and human kind. The institute organizes various activities under Swatchatta Abhiyan, Unnat Bharat Abhiyan, Digital India Mission, NSS, Nature Club etc. Similar activities are also organized by department student associations. Such activities help in interpersonal skill, communication skill and social empathy.

Interaction with eminent personalities helps motivating the inmates. The institute organizes sessions by eminent speakers not only for technical knowhow but also to set examples as role model. Festival of Engineers, Administrators, Scientists and Technocrats (FEAST) is a unique event of such kind.

Blood donation is a noble cause for the society. Institute organizes blood donation camps in the campus; it helps in teaching students about humanity and gives an opportunity to add value to their life. The institute is recognized by District Collector and Red Cross Society for outstanding contribution towards blood collection.

Plantation is instrumental for eco-friendly environment. The institute is well concerned about environment protection through plantation, gardening, use of renewable energy, waste water recycling etc. Tree plantation helps students in creating a sense of caring, responsibility and commitment towards environment.

295 KW roof top solar power plants, water distribution through siphon and waste water treatment plant are the major initiatives by the institute towards energy conservation. Such initiatives create awareness among students towards energy conservation and provide opportunities for study projects.

Being technical institution, the institute focuses on transforming human being to human resources. As part of regular practice, the institute plays pivotal role to develop technical skills among students through technical events and activities, Workshops, expert talks and students clubs.

MILESTONE, a technical event, has been organized from last two decades by the institute. Every year the event evolved with new ideas to provide better exposure to develop skills among students. The mega event includes paper presentation, poster presentation, designing & modelling, coding, start-up ideas etc. Since the organizing committee of the event includes students, the event inculcates administrative skills, in addition to other skills, among students. Institute organizes Entrepreneurship Awareness Camps to make students avail entrepreneurship as option for their future. Institute also imbibes skills through various activities such as preparatory sessions for Hackathon, industrial /site visits, project / science exhibition etc.

In order to make the students employable, the institute conducts several workshops on soft skills, computational skills, project development, operation and maintenance of advanced machines etc.

The institute invites eminent personalities, alumni, industrialists, engineers etc. Such talks help students to visualize their future as successful professional achievers.

Students clubs like Robo Club, Energy club, Nature club etc. provide students a platform to share and explore ideas towards societal problems.

# **Evidence of Success**

Overall, Efforts taken by the institute to enhance Value and Skill has turned out to be fruitful as our students have gained success at National Level in Hackathon as well as in events like Robocon. This was possible for our students because they could improve their Communication and Presentation skills through their participation in college level activities. The role of the institute in preparing students for such competitions is in line with mission of the institute.

# **Problems Encountered and Resources required**

In a semester pattern, contact hours are so precisely defined that it's very hard to accommodate every aspect of student's development. However, the institute prepares its academic calendar by considering time constraints in a semester pattern and balances with the need of value added and skill education.

Being majority of students admitted are from rural area, the institute faces a challenge to orient them towards professionalism and modern practices. Through continues efforts to bridge this gap the students have acclimatized the required human values and professional skills.

# **Best Practice -II**

# Infrastructural support to ensure educational outcomes

# **Objectives of the Practice**

Educational outcomes mandate infrastructural support by providing world class amenities and services. In line with mission of the institute, following are the objectives:

- To provide conducive and eco-friendly environment for life-long learning of sustainable development.
- To provide state-of-the -art physical infrastructure for teaching learning
- To provide ICT enabled facilities to augment academic and administrative effectiveness

# The context

Developing infrastructural support, particularly in rural area, has been a challenge. Transforming rocky barren land into lush green magnificent campus was never an easy milestone. Lack of skilled man power and resources in the near vicinity further aggravated the realisation. In spite of these showstoppers the institute has made its existence not only in this region but also in the country.

Started in 1983 with scarce infrastructure, now the institute has transformed into a pleasant campus with huge built up, full greenery, ICT class rooms, well equipped laboratories, spacious library, gymnasium with advanced facilities, play grounds, open air theatre, furnished hostels, staff quarters, cafeteria, guest house, renewable energy sources, Internet access anytime – anywhere etc. These transformations reflect the vision of the institute.

# The Practice:

Infrastructural support being the prime focus, the institute with its visionary governing body has nurtured the 25 acre campus for conducive and eco-friendly environment. During these four decades since inception, the institute has evolved to a green campus with consistent efforts and dedication. The campus with lush green lawn, trees with name, pollution free makes more joyful. Towards sustainable development the campus has renewable energy through solar plant, waste water recycling plant, rain water harvesting, garbage composting etc. Such amenities make the campus ideal for lifelong learning.

The institute has the policy to create and enhance the infrastructure that facilitates effective teaching and learning. Currently the institute has instructional area 16573 sq.mt., administrative area 3039 sq.mt., amenities 8265 sq.mt., circulation area 8385 sq.mt. with total built up area 31734 sq.mt. The instructional area includes library with 1251 sq.mt. as opposed to required 600 sq.mt. and workshop with 840 sq.mt. as opposed to required 600 sq.mt. Among amenities, gymnasium is of 187sq.mt., open air theatre is of 1944 sq.mt., The campus has boys' hostels with 8890 sq.mt. andgirls hostels with 4290 sq.mt. Availability of such well-furnished state-of-the-art infrastructure excels the teaching –learning process.

ICT being the nerves of the institute facilitates not only in academics but also in administration. For academics the institute has 38 ICT enabled class rooms supported by internet through wired and wireless. Since last decade the network connectivity across the campus is expanded rapidly to enable Internet access anywhere anytime. Further, such infrastructure also facilitates in students support system for effective administration. Moreover, the institute has

facilitated the infrastructure for onscreen evaluation of University examination answer papers, online teaching, Learning Management System, Digital Libraryetc.

# **Evidence of Success**

- Spacious ground has contributed to the physical and mental wellness of students and created a positive atmosphere on the campus.
- Library is utilized effectively as a resource incorporating technologies like Digital Libraryetc.
- Classrooms with proper ventilation and sufficient space have facilitated smoother learning process.
- Transport facility with safe routes and economic viability has benefitted students. It has helped students be active, punctual and responsible.

# **Problems Encountered and Resources required**

Being self financed the institute solely depends upon fees collected. Since the students admitted has limited source of earning, the institute provides the facility of installment. Hence, the institute finds difficulty in planning & budgeting.

•

File Description	Document
Link for Best practices in the Institutional web site	View Document
Link for any other relevant information	View Document

7.3 Institutional Distinctiveness

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

#### Answer:

Vision of the Institution is to empower students with quality education, knowledge, progressive technology and cultivate the sense of social responsibility and patriotism. The Institute instigates systematic effective practices into all its academic and administrative work to develop and harness the latent potentials of student and faculty. Modernization in all spheres of Curriculum, Teaching -Learning -Evaluation, Student Support System, building learning resources are intertwined for overall student development and reflected in the teaching –learning- research ecosystems the institute is engaged with.

The Institute has established its distinctive approach towards this comprehensive Vision by intending it in the form of service to the society, by developing skilled human resource, multidisciplinary facilities to enrich research environment and Entrepreneurship development.

The institute takes initiatives for skill development of students by arranging programs such as soft skills, Language and communication skills, Life skills (Yoga, physical fitness, health and hygiene), ICT/computing skills etc. which provides an environment to transform into skillful human resource.

The Institute organizes project exhibition and national level paper presentation specially for students to provide a platform so that the students may manifest their technical creativity, share ideas and intermingle amongst the technical fraternity. Students are encouraged and provided technical and financial support to participate in project exhibitions, paper presentations, Hackathon, Roboconand Dipex like events.

The Institute has taken several initiatives to cultivate innovation as the way of life. The Institute has started an Innovation and Incubation collaborative activity with Centre for Innovation Incubation and Linkages (KCIIL) of KBC, North Maharashtra University, Jalgaon in order to augment innovation-driven culture among students and faculty promoting intra disciplinary approach aiming to competitive, conducive and value added environment for products, patents and publications.

An engineer must not be just a job seeker, rather must be a job creator. Thus s/he must develop entrepreneurial characteristics along with technical knowledge. To ensure this institute organizes Entrepreneurship Awareness Camps, Entrepreneurship Development Programmes, Faculty Development Programmes and Skill Development Programmes in the institution. This is to guide and assist prospective entrepreneurs on various aspects such as preparing project reports, obtaining project approvals, loans and facilities from agencies of support system, information on technologies, etc. and to have interaction with esteemed entrepreneurs who may inspire and mentor student to become entrepreneurs.

Innovation & Entrepreneurship Development Centre (IEDC) in the institute have got sanctioned in academic year 2012-13 by National Science & Technology Entrepreneurship Board (NSTEDB), DST, Govt. of India with financial assistance of Rs. 45.3 Lakhs for five years (from 2012-13 to 2016-17). The objective of the IEDC is to inculcate the innovation driven entrepreneurships in students. To fulfill this objective, IEDC sponsored student's five innovative projects every year with financial assistance of Rs. 1 Lakh each including fellowship of Rs.30,000/- to the students for each project. During this five years Total 25 projects have been sponsored with financial assistance of Rs. 1 Lakh each. Subsequent to this, Institute has started Shram Sadhna Innovation & Entrepreneurship Development Cell (SSIEDC) from the academic year 2017-18.

To nurture the product based ideas of students, Incubation Centre is established in the institute. In the year 2019 - 20, two Departments, namely Department of Computer Engineering and Chemical – Biotechnology Engineering, initiated product based development projects.

Director (Research and Development) motivates Faculty members to initiate In-house Projects, explores funded Projects from External Agencies and assists in submission of proposals. There are significant industrial MOUs signed to collaborate with Industry for Joint consultancy and research projects.

There is an international collaboration with Prince of Songkla University; South Thailand. The collaboration provides opportunities for research and development, innovation, applications.

Research and teaching are complementary to each other. Through research the teachers explore the sea of knowledge and bring up the new technology which makes the engineers better employable and human life more comfortable. The institute has endeavored to transform from a basic teaching institute to teaching and Research institute, out of 27 faculty members with Doctorates qualification 17 are recognized Research Guides. The Institute has six recognized research centers with 52 enrolled Research Scholars. The institute has indigenous research funding scheme "Shram Sadhna Research Promotion Scheme" to provide seed money to the research ideas of faculty.

The institute publishes Bi-annual Journal 'PRATIBHA: International Journal of Science, Spirituality, Business and Technology (IJSSBT)'. The journal is a peer reviewed that takes scholarly approach in creating, developing, integrating, sharing and applying knowledge about all the fields of study in Engineering, Spirituality, Management and Science for the benefit of humanity and the profession.

The Institute is conducting International conference every year to encourage the research atmosphere

The institute believes in green technology use and promotion and has installed solar power plant with capacity of 295 kW, which fulfills 60% of Electricity demands of the Institute. Solar water heaters, rain water harvesting, Sullage treatment plants and vermicompost are operational in the campus to save electricity and environment.

•

File Description	Document
Link for any other relevant information	View Document
Link for appropriate web in the Institutional website	View Document

# **Extended Profile**

#### Program

# Number of courses offered by the Institution across all programs during the last five years

# Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
09	09	11	11	14

File Description	Document
Institutional data prescribed format	View Document

# Number of programs offered year-wise for last five years

# Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
02	02	03	03	03
Studente				

# Students

Number of students year-wise during last five years

# Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
2373	2474	2599	2757	2997

File Description	Document
Institutional data in prescribed format	View Document

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

#### Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
209	257	257	257	279

File Description	Document
Institutional data in prescribed format	View Document

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

# Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
696	756	781	786	820

File Description	Document
Institutional data in prescribed format	View Document

# Teachers

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

# Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
120	125	154	160	156

File Description	Document
Institutional data in prescribed format	View Document

Number of sanctioned posts year-wise during last five years

# Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
124	135	141	159	156

File Description	Document	
Institutional data in prescribed format	View Document	

# Institution

# Total number of classrooms and seminar halls

Answer: 46

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

# Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
573.50	639.57	706.88	731.36	765.82

# Number of Computers

Answer: 830

# Conclusion

# Additional Information :

- The institute is conferred "A" Grade by Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon vide letter number KBCNMU/11A/Academic Audit/246/2019 dated 04/06/2019 as per its Academic Audit.
- The institute is included in the list of colleges prepared under Section 2(f) of the UGC Act, 1956 vide letter number F 8-40/2008 (CPP-I) dated 2 June 2008 and 12(B) vide letter number F.No. 8-40/2008(CPP-I/C) dated 23 September 2010.
- Four Programmes (Civil, Bio-Technology, Chemical and Electronics & Tele-communications Engineering) were provisionally accredited by NBA for two years with effect from 01/07/2014 Vide Letter F. No. 28-235/2010-NBA, dated October 01, 2014.
- Seven Programmes (Civil, Chemical, Computer, Electrical, Electronics and Telecommunication, Information Technology and Mechanical,) were accredited by NBA for five years with effect from 19/07/2008 vide letter F. No. NBA/ACCR-414/2004, dated July 18, 2008.
- Four Programmes (Civil, Chemical, Computer, and Mechanical) were accredited by NBA for three years with effect from -18/02/2005 vide letter no. NBA/ACCR-414/2005.
- Quality Management System (QMS) of the institute conforms to ISO 9001:2008 since March 2009 and ISO 9001:2015 since February 2018.
- The institute is awarded "Outstanding IQAC Awards 2021" in the category of Research Environment by Green Mentors, Ahmadabad.
- The institute is awarded "Engineering College of the Year for Academic Productivity" in 2020 by The Academic Insights, Bangalore.
- The institute is awarded "Better India Education Awards 2018" on June 30, 2018 by Today Research & Rating, New Delhi.
- The institute is awarded "Brand Excellence in Education" in 2017 by 94.3 MY FM, Dainik Bhaskar Corporation Ltd.
- The institute is awarded "Engineering Education Excellence Award-2015" by INDO Global Chamber of Commerce Industries and Agriculture Pune, for the efforts in promoting Quality Education and implementing the higher standards of Technical Education in the field of Engineering.
- The institute is awarded "Corporate Excellence Award" on 28th November 2015, for Brand Excellence in Education by Lokmat.
- The institute is awarded "EEF Award for Excellence 2008 09" by Engineering Education Foundation, Pune.

# **Concluding Remarks:**

Shram Sadhana Bombay Trust's College of Engineering and Technology, Bambhori, Jalgaon, has carried the legacy of imparting quality education to thousands of students.

Though majority of the students admitted are from nearby rural areas and first generation learners, of which most of them have been educated through Marathi medium schools, in spite of these showstoppers the institute has transformed into one of the most preferred institute for fresh aspiring students. The kind of infrastructure support and quality education

provided, well qualified & experienced faculty and enthusiastic students of this institute will continue to glow the flame even brighter. The visionary Management of the institute is leading the path to ensure educational outcomes.

The efforts by the faculty members and staff for collecting documentary evidence and data for this Self Study Report (SSR) have strengthened the team spirit. The contribution of all who have helped directly or indirectly in preparing this SSR is gratefully acknowledged.

The Institution believes that NAAC certification assures the standard of education provided at the institute. The institute is looking forward to the NAAC peer team visit not only to showcase educational excellence but also to receive suggestions to improve further.

# **EXCLUDED METRICES**

# List of Excluded Metrices

# 5 Student Support and Progression : Weightage (130)

#### 5.1 Student Support : Weightage ( 50 )

Ref No	Details of Metric	weightage	Metric Performance
5.1.2	Average percentage of students benefitted by scholarships, freeships etc. provided by the institution / non- government agencies during the last five years (Metric Type : <b>Derived</b> , Question Type : <b>QN</b> , Evaluation : <b>By DVV</b> , Nature : <b>Value</b> )	5	2.86

#### 5.4 Alumni Engagement : Weightage (10)

Ref No	Details of Metric	weightage	Metric Performance
5.4.2	Alumni contribution during the last five years (INR in lakhs) ( Metric Type : <b>Direct</b> , Question Type : <b>QN</b> , Evaluation : <b>By DVV</b> , Nature : <b>MC</b> )	5	E. <1 Lakhs

# 6 Governance, Leadership and Management : Weightage (100)

### 6.4 Financial Management and Resource Mobilization : Weightage (20)

Ref No	Details of Metric	weightage	Metric Performance
6.4.2	Funds / Grants received from non-government bodies, individuals, philanthropers during the last five years (not covered in Criterion III) ( Metric Type : <b>Derived</b> , Question Type : <b>QN</b> , Evaluation : <b>By DVV</b> , Nature : <b>Value</b> )	8	0

# ANNEXURE