

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

# SREENIDHI INSTITUTE OF SCIENCE AND TECHNOLOGY

YAMNAMPET, GHATKESAR, HYDERABAD - 501301 501301

www.sreenidhi.edu.in

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## Submitted To

## NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

**BANGALORE** 

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## 1. EXECUTIVE SUMMARY

## 1.1 INTRODUCTION

Sreenidhi is the first affiliated college among 500 colleges under JNTUH to get accredited by NBA and to get Autonomy by UGC in the years 2003 and 2010.

### Philosophy of Education in Sreenidhi

Sreenidhi aims through its initiatives, at transforming the students into balanced individuals who are intellectually strong, emotionally stable, physically robust, socially responsible, spiritually enlightened and globally competitive.

### Student development activities

Several opportunities are provided to students to associate with their technical associations and student chapters of professional societies such as IEEE, IETE, CSI, SAE etc. Students are encouraged to participate in various co-curricular activities organised by these organisations which help them acquire technical skills.

The students take part in extra- curricular activities held by Literary club, Arts club, NCC and social service activities organised by NSS, BachpanPrayas, Street Cause, Sreenidhi Cancer Foundation etc., which give them abundant opportunities to improve their inter-personal skills, team skills and leadership skills.

Besides winning several prizes, we are elated that the Robotics Club was invited by five institutions including IIIT Basara, to teach their students, Robotics.

#### Encouragement to students in Innovation and R & D

The promotion of Innovation has helped the students win numerous medals in national level competitions and in international competitions held in Bangkok, Poland and Indonesia. A project on development of drone for agricultural operations such as detection of pests and spraying suitable pesticides on the crops has won lakhs of Rupees in various competitions in India.

Encouragement to students in publishing Research papers, has resulted in publication of 700 Papers along with faculty in Scopus, UGC Indexed Journals in the last five years and submission of 17 applications for award of patents.

### Faculty, the heart of Sreenidhi

Our Management recruits competent and experienced faculty, who are the pillars of the institute's development and growth. They are trained to excel both in research and in teaching. They have to their credit 19 applications for patents, some of which are registered and the remaining published. They have also published 1542 research papers in Scopus / UGC indexed journals.

## Vision

• To emerge as a leading World-class institution of higher education by way of realizing excellence in the chosen fields of Technical disciplines through teaching, research and consultancy steeped in values.

#### Mission

- To offer world-class Education, Research, Training and Consultancy Programmes in the chosen fields/technical disciplines with emphasis on culture and to respond to the changing global competitive environment.
- To emerge as a Continuous Learning Organization through rigorous and exciting Research Environment for expanding knowledge in chosen fields.
- To serve the Industry, other Institutions and the Society through highest professional values and ethics.

To offer assistance to nearby villages as a responsibility to the society, and to train unemployed youth in Technical Trades for enabling them to gainfully employed.

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

## **Institutional Strength**

## **Strengths**

Our institution has a progressive management, dedicated faculty, high quality incoming students and updated curriculum to shape the students into competent employable graduates.

## 1. Progressive and Enlightened Management:

Sree Educational Society registered under Societies Act in the year 1996 has established Sreenidhi Institute of Science and Technology in the year 1997. The Society has a vision to develop the institute in all respects so that it can eventually become a Deemed-to-be-University. The Management never compromised regarding developing infrastructure and attracting dedicated faculty. It has encouraged the faculty to become effective teachers and to pursue R&D activity. The internal research grants, trainings and motivation in the form of Best Teacher Awards, boost the faculty performance. The top IEEE students too bag awards apart from many other recognitions given to the students who excel in curricular, co- and extracurricular activities. The Management enthusiastically supports efforts made by the college to make the students intellectually strong, physically robust, emotionally stable, socially responsible and spiritually enlightened.

### 2. Dedicated faculty:

Ever since the inception of the college, senior faculty are invited from reputed academic institutions, industries and R&D organizations. They are the pillars of progress of the institution. They have established laboratories and guided relatively junior teachers to become effective in instruction of theory and practical subjects. The college empowers the faculty, who are the heart of the institution in all possible manner. They are not only dedicated teachers but also aggressive researchers, who in turn encourage student research.

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#### 3. Meritorious students:

The college attracts the top 4 to 5 % of rankers in each of the categories of the EAMCET examination. The college has never advertised for admissions. The parents and the students have been our Ambassadors. We take pride that a majority of the 25 applications submitted by the college for patents, were done by students in collaboration with faculty.

## 4. Updated Curriculum:

Being autonomous, the college is continuously taking into consideration the skills in demand in the industry and technological developments that are taking place in different branches of engineering and technology and revising the curriculum as often as necessary.

#### **Institutional Weakness**

#### Weaknesses

Some problems encountered by the institution are:

### 1. Meritorious graduates' disinterest in Academic profession:

Greener pastures available abroad lure the meritorious graduates, resulting in most of them settling there. Back home, lucrative offers of the software industry attract most graduates. The residual graduates, who fail to move to these greener pastures, opt for academic career. In contrast, a couple of decades ago, gold medalists and high rankers joined as faculty members after their post-graduation / doctoral studies. Thus, it is a challenge to technical education system as to how best fresh faculty can be shaped to become effective teachers and researchers.

### 2. Lack of freedom in fixing the tuition fee structure:

The Telangana Admission and Fee Regulatory Committee (TAFRC) fixes the tuition fee to be collected from the students in various professional colleges including UG and PG courses in Engineering and Technology. All engineering colleges submit the projected expenditure for a block period of 3 years with necessary documentation. The TAFRC is constituted by the Government and its Member Secretary is Secretary of Education with a retired Judge as the Chairman. However, the committee is highly influenced by the Government representatives. Thus, the tuition fee requirement as projected by the colleges including our college with due documentation is usually not permitted by TAFRC. It doesn't take even the AICTE recommendations regarding tuition fee requirements into consideration. Thus, all engineering colleges including ours are working under financial constraints.

### 3. Wide difference between top rankers and low rankers:

The Government of Telangana follows the reservation norms and allots the students to the colleges including ours. There is a wide gap between the standards of those students and that of the original intake in the college. It has become a challenge to the teacher to ensure intellectual satisfaction of top rankers and minimum level of understanding of the subject by the low rankers. The faculty aim at understanding of the subject of average student so that large majority of the students in a section are satisfied. This is a problem that arises in most

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affiliated colleges.

## **Institutional Opportunity**

## **Oppurtunities**

Manifold opportunities exist for this institution due to which it continues to be a sought-after institution for Engineering studies.

#### 1. Sub-urban location:

Hyderabad has several major industries such as BHEL, ECIL and defense R&D organizations. Besides these, there are several medium and small-scale sectors spread over different parts of Hyderabad. There are 5 industrial estates within a close range of the college. And there are several buses run by RTC to these sub-urban areas which attracts students to the college.

Contrary to this there are several colleges which are established in the urban areas. Yet students prefer joining the institutions of standing in the sub-urban areas of Hyderabad, due to good faculty and infrastructure. Thus, there is continuous opportunity for admissions to take place in our college. Based on the report of Convener (Admissions) for EAMCET year after year 100% of the seats are filled in our college and it will continue to be filled.

## 2. Ability to attract good faculty by the institution:

Any faculty member would like to have good academic environment in the institution besides good health care facility and good schools for their children to study in the vicinity. Faculty get attracted to our college due to the progressive management and the availability of the aforesaid facilities. High retention of faculty testifies the claim.

## 3. Abundant opportunities for R&D and Consultancy:

As stated above, there are large number of industries and R&D organizations for developing good contacts and showcasing capabilities of faculty. Good progress is made so far in taking up R&D projects and Consultancy with several organizations including those in small scale sector. Excellent consultancy terms are provided by the management by payment of 70% of consultancy income to the faculty in the event of not using infrastructure and equipment of the college for consultancy work.

### 4. Telangana Government's initiative to establish Private Universities:

It is possible to apply for establishment of Private University in which the weaknesses mentioned above can be overcome. The society has enough land as per norms for establishment of Private University.

## **Institutional Challenge**

## **Challenges**

There are some challenges which the institution must take into consideration.

## 1) Possible decline in Software industry and lack of interest in students for pursuing engineering studies:

The boom of software industry in and around Hyderabad has kindled the interest of students in pursuing Engineering studies. Large number of engineering colleges were established in different parts of Telangana State including sub-urban areas of Hyderabad. But now, with possible decline in software sector which is the major recruiter of engineering graduates, the students are not so much enthusiastic to study engineering degree courses. In the process many engineering colleges in rural parts of Telangana State are getting either closed or running with poor enrollment. Financial viability has become a major problem. This is a great challenge to our institution as well. The institution must re-set its objectives to ensure that all the graduates coming out of the institution must be gainfully engaged. The strategy must be to make a student to become industry-ready by the time he graduates or prepare him for Post Graduate studies abroad or in India in reputed institutions or make them capable of earning their livelihood by taking up start-up activity. The outcome-oriented approach with problem solving capabilities must be imbibed in the students. The faculty should be re-oriented to attain this objective resulting in continued progress of the institution.

## 2) Attracting and shaping the faculty to be effective teachers and path makers to the students:

In the existing financial constraints due to lower fee structure fixed by TAFRC when compared to the actual requirements, it is becoming more and more difficult to attract the faculty who are academically strong and have ability to conduct research and carry out consultancy activity. Unless the colleges, including ours have other source of income such as consultancy, it may not be possible to sustain the present state of development. The teachers are to be consultants to various industries and R&D organizations as is the case in IITs and advanced countries. This will not only increase the financial resources but also help in teaching with practical orientation.

## 1.3 CRITERIA WISE SUMMARY

### **Curricular Aspects**

By the virtue of being autonomous, the vibrant activity of curriculum design displays a strong dimension, for providing quality engineering education which is need-based and has social relevance. The institution reaps maximum benefit from the freedom it has in designing curriculum based on the needs of the industry and skills in demand analysis that bridges the gap between industry and academia and thus enhancing employability. It encourages its educational administrators to create syllabi and teaching modules which are directly related to the future prospects of the learner groups.

The college reviews the entire syllabus in all streams of courses at least once in every two years based on the skills in demand and interaction with industry, academia, alumni and present students. The departmental inputs are consolidated in the shape of proposal of revised syllabus of the department for respective courses to be started. These proposals are scrutinized by an internal committee and then submitted to Boards of Studies of the college and syllabus is approved by the Academic Council of the college. The Boards of Studies and Academic Council of the college are constituted as per the UGC guidelines with representatives from industry, academic institutions, a nominee of Govt. of A.P., a nominee of the parent University.

## **Teaching-learning and Evaluation**

The ambience at SNIST is conducive both for the teachers and the students. It is learner-centric. The betterment of the student is at the core of all activities and all the events and the activities are geared to serve the varied and challenging interests of the students. Every activity on the campus is focused for holistic development of the student. The institution proceeds with a sense of social responsibility in providing access and equity to all, thereby, making higher education a powerful tool in shaping the career of the students. The true essence of teaching learning process is exhibited through vibrant research activity. The established and the budding research activities are constantly encouraged to publish research papers in national and international journals and attend conferences and seminars to update themselves in their respective domains.

The college has regular practice of self-appraisal of teachers on yearly basis right from its inception. The format of self-appraisal report is improved from time to time based on growth of the institution and expansion of the role of teachers in shaping the institution. It is one of those colleges which have the highest intake of the students. One quality and unique feature of SNIST is its robust ICT facility. The classrooms are fully airconditioned and richly furnished with latest audio-visual teaching aids. Another feather to the cap is installation of SAP software.

### Research, Innovations and Extension

Research activity is the heart of the teaching fraternity which is always dynamic. The ambience of the institution makes faculty to take up research. The institution is system driven and the policies are framed in such a way that they become the point of inspiration and also rich source of infrastructure facilities.

The institution has an R&D wing to promote research in all branches of Science and Technology. Dean (R&D) approves internal R&D projects and provides seed money. The college is engaged in demand driven R&D with funds received from national agencies such as ISRO, UGC, DST, AICTE etc. The consultancy activity is also being carried out for ISRO, Singareni Collieries Ltd. etc.The senior faculty is engaged in guiding candidates who have registered for part time Ph.D with various universities. Fifteen competent faculty members are already recognized as research supervisors for Ph. D guidance by JNTU, Hyderabad, Osmania and Kakatiya Universities.

JNT University, Hyderabad has recognized four Departments of our Institution as "Research Centers" to offer research programmes leading to award of Ph.D. degrees. The college is privileged to have recognition by Department of Scientific and Industrial Research (DSIR) as Scientific and Industrial Research Organization (SIRO) which enhances the scope for sponsored R&D projects. The faculty members are awarded Rs.10, 000 if they publish papers in reputed International Journals and Rs.5000 for National Journals. The college budget has provisions for funding seminars, participation in seminars by the faculty. The consultancy income is shared between faculty concerned and the institution.

### **Infrastructure and Learning Resources**

The physical infrastructure is one of the vital components that make teaching learning an enriching experience. The nerve centers of the academic activity are class rooms and laboratories. The treasure house of the college is its central library. Library is fully automated (computerized) for issue/circulation and access of library

resources. The library also has an archives section. The college is constructing another building for Library use only, where the space and facilities will increase manifold.

## **Student Support and Progression**

he steady and consistent progress of any educational institution can be analyzed through student support and their constant progress towards achieving academic excellence. Infrastructural facilities like ICT enabled system, competitive team of teachers, transport facilities; course and reimbursement of tuition fee by the Govt. of A.P. and information from student counseling centers are also major indicators of student support and progression.

Another channel which indicates student support and progression is "Career Guidance and Training and Placement." It organizes all the programs of employability enhancement, personality development and campus recruitment. The placement results have been quite encouraging and the Cell is always agog with relevant activities.

The students organize cultural and extra-curricular events on the campus, and also take active part in such activities organized by other institutions. They are encouraged at individual and departmental levels. There are active clubs such as Robotics Club, Electronics Club, Arts Club, Nidhi Club, Vox Populi etc. which work under the guidance of the faculty. The faculty also associates with the conduct of National level Technical meets and contests conducted by various technical clubs and technical professional organizations such as IEEE, ISTE, Robotics Club, Nidhi Club and Innovation Club etc.

The institute has an Alumni Association, which meets once in a year where in faculty, students and alumni exchange their views on various aspects of contemporary developments and their impact on education / curriculum.

Discipline among the students of this college is excellent with cooperation from all concerned.

### Governance, Leadership and Management

The leadership of the institution involves the Principal and the heads of the departments. However, deanships and directorships are created to give a sense of direction and policy formulations to support the principal and heads of the departments in their routine functions and also in the developmental process of the institution. The college Academic Committee is also a policy making body consists of the principal, directors, deans, heads and professors of various departments of the college.

The other faculty members i.e. associate professors and assistant professors are the members of departmental committees constituted for various purposes such as academics, administration, preparation of time-tables, library, infrastructure development, industry institute interaction and visits technical associations, industrial training etc. Some of the faculty members are members of various professional organizations such as IEEE, ISTE, IETE, CSI, SAE, AIBA etc.

The Academic Council is the ultimate authority with regard to various courses to be offered at UG and PG level, giving approval to the schemes of instruction, detailed syllabi of various courses evaluation as a procedure, award of degree etc. and nominating experts to the Board of Studies, etc.

The college has 95 percent of retention rate of faculty. The recent decisions of Board of Governors for giving incentives for publication of papers, sponsored research projects and conducting consultancy and offering best teacher/staff and student awards will help the institution for retention of faculty/staff and getting the very best from students.

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

The college has a strong passion for quality. It strives hard to maintain its standards by being innovative in every activity it takes up. Some innovative strategies listed below display the streak of innovation:

College established Senior Management Team by associating the heterogeneous group of faculty and administrative staff under the Chairmanship of Secretary/Correspondent. Various aspects such as faculty and staff, infrastructural facilities, computers, lab

equipment, library books and journals, R&D, transport requirements etc. are proposed by various committee members are discussed in the meetings for approval. Necessary funds required are also projected for various developmental activities.

The strategy adopted for better governance is a balanced organizational structure with adequate delegation and autonomy to departmental operations of teaching learning and research process so that they can focus on establishing excellence in their respective domains.

To inculcate the culture of holistic development of the students, the college, after acquiring autonomous status has introduced following additional courses to enhance the competitiveness of students and hence improve their employability. They are: Logical Reasoning-I, II, Quantitative Aptitude, Functional and Communicative Written English, Soft Skills, crash courses on corporate training during Placement season etc.

Thus, every effort is being made to make our students very competitive in job market and acquire global competency. While framing the curriculum inputs are taken from various stakeholders, students, academic peers, industry, employers etc.

## 2. PROFILE

## 2.1 BASIC INFORMATION

Name and Address of the College		
Name	SREENIDHI INSTITUTE OF SCIENCE AND TECHNOLOGY	
Address	YAMNAMPET, GHATKESAR, HYDERABAD - 501301	
City	HYDERABAD	
State	Telangana	
Pin	501301	
Website	www.sreenidhi.edu.in	

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	T.Ch. SIVA REDDY	08415-200595	9848718185	9140-276403 94	info@sreenidhi.ed u.in
Professor	P.V.S. Srinivas	08415-200596	9866861613	9140-276333 49	pvssrinivas@sreeni dhi.edu.in

Status of the Institution		
Institution Status	Self Financing	

Type of Institution		
By Gender	Co-education	
By Shift	Regular	

Recognized Minority institution	
If it is a recognized minroity institution	No

<b>Establishment Details</b>	
Date of Establishment, Prior to the Grant of	16-09-1997

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'Autonomy'	
Date of grant of 'Autonomy' to the College by UGC	23-03-2010

University to which the college is affiliated			
State University name Document			
Telangana	Jawaharlal Nehru Technological University	View Document	

Details of UGC recognition				
<b>Under Section</b>	Date	View Document		
2f of UGC	07-04-2010	<u>View Document</u>		
12B of UGC	10-12-2010	View Document		

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)				
Statutory Regulatory Authority	Recognition/App roval details Inst itution/Departme nt programme	Day,Month and year(dd-mm- yyyy)	Validity in months	Remarks
AICTE	View Document	16-04-2018	12	
AICTE	View Document	16-04-2018	12	
AICTE	View Document	16-04-2018	12	
AICTE	View Document	16-04-2018	12	
AICTE	View Document	16-04-2018	12	
AICTE	View Document	16-04-2018	12	

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

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	YAMNAMPET, GHATKESAR, HYDERABAD - 501301	Semi-urban	10	39930

## 2.2 ACADEMIC INFORMATION

<b>Details of Pro</b>	Details of Programmes Offered by the College (Give Data for Current Academic year)							
Programme Level	Name of Pr ogramme/C ourse	Duration in Months	Entry Qualificatio n	Medium of Instruction	Sanctioned Strength	No.of Students Admitted		
UG	BTech,Civil Engineering	48	intermediate	English	60	60		
UG	BTech,Comp uter Science And Engineering	48	intermediate	English	300	300		
UG	BTech,Electr onics And C ommunicatio n Engineering	48	intermediate	English	420	420		
UG	BTech,Electr ical And Electronics And Engineering	48	intermediate	English	180	176		
UG	BTech,Electr onics And Computer Engineering	48	intermediate	English	180	180		
UG	BTech,Infor mation Technology	48	intermediate	English	240	240		
UG	BTech,Mech anical Engineering	48	intermediate	English	240	219		

UG	BTech,Biote chnology	48	intermediate	English	60	0
PG	Mtech,Comp uter Science And Engineering	24	engineering	English	24	14
PG	Mtech,Comp uter Science And Engineering	24	engineering	English	24	8
PG	Mtech,Electr onics And C ommunicatio n Engineering	24	engineering	English	24	12
PG	Mtech,Electr ical And Electronics And Engineering	24	engineering	English	18	8
PG	Mtech,Infor mation Technology	24	engineering	English	24	13
PG	Mtech,Mech anical Engineering	24	engineering	English	24	15
PG	Mtech,Mech anical Engineering	24	engineering	English	18	14
PG	MBA,Master Of Business Administrati on	24	any degree	English	60	59

Position Details of Faculty & Staff in the College

	Teaching Faculty											
	Profe	essor			Asso	ciate Pr	ofessor		Assis	Assistant Professor		
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0				0				0
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit				0				0				0
Sanctioned by the Management/Soci ety or Other Authorized Bodies				48				69	J			224
Recruited	42	6	0	48	50	19	0	69	138	86	0	224
Yet to Recruit				0				0				0

	Non-Teaching Staff								
	Male	Female	Others	Total					
Sanctioned by the UGC /University State Government	7	7,		150					
Recruited	110	40	0	150					
Yet to Recruit				0					
Sanctioned by the Management/Society or Other Authorized Bodies				150					
Recruited	110	40	0	150					
Yet to Recruit				0					

	Technical Staff								
	Male	Female	Others	Total					
Sanctioned by the UGC /University State Government				96					
Recruited	57	39	0	96					
Yet to Recruit				0					
Sanctioned by the Management/Society or Other Authorized Bodies				96					
Recruited	57	39	0	96					
Yet to Recruit				0					

## **Qualification Details of the Teaching Staff**

	Permanent Teachers									
Highest Qualificatio n	Professor		Associate Professor			Assistant Professor				
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	39	6	0	35	11	0	20	5	0	116
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	2	0	0	30	9	0	118	81	0	240

	Temporary Teachers									
Highest Qualificatio n	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

	Part Time Teachers									
Highest Qualificatio n	Professor		Associate Professor			Assistant Professor				
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	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	Male	Female	Others	Total		
engaged with the college?	0	0	0	0		

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

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	3933	130	0	0	4063
	Female	2021	40	0	0	2061
	Others	0	0	0	0	0
PG	Male	134	6	0	0	140
	Female	144	3	0	0	147
	Others	0	0	0	0	0

Provide the Followin Years	g Details of Studer	nts admitted	to the College I	Ouring the last f	our Academic
Programme		Year 1	Year 2	Year 3	Year 4
SC	Male	112	109	97	88
	Female	60	59	57	52
	Others	0	0	0	0
ST	Male	36	43	38	35
	Female	27	23	20	14
	Others	0	0	0	0
OBC	Male	322	314	272	250
	Female	174	175	167	153
	Others	0	0	0	0
General	Male	665	559	608	479
	Female	330	337	298	273
	Others	0	0	0	0
Others	Male	39	31	31	31
	Female	14	12	14	6
	Others	0	0	0	0
Total		1779	1662	1602	1381

## 2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report				
Biotechnology	<u>View Document</u>				
Biotechnology	<u>View Document</u>				
Civil Engineering	<u>View Document</u>				
Civil Engineering	<u>View Document</u>				
Computer Science And Engineering	<u>View Document</u>				
Computer Science And Engineering	View Document				
Electrical And Electronics And Engineering	<u>View Document</u>				
Electrical And Electronics And Engineering	<u>View Document</u>				
Electronics And Communication Engineering	<u>View Document</u>				
Electronics And Communication Engineering	<u>View Document</u>				
Electronics And Computer Engineering	<u>View Document</u>				
Electronics And Computer Engineering	View Document				
Information Technology	View Document				
Information Technology	<u>View Document</u>				
Master Of Business Administration	View Document				
Master Of Business Administration	View Document				
Mechanical Engineering	<u>View Document</u>				
Mechanical Engineering	View Document				

## 3. Extended Profile

## 3.1 Program

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

2018-19	2017-18	2016-17	2015-16	2014-15
15	16	15	17	17

File Description	Document
Institutional Data in Prescribed Format	View Document

## 3.2 Students

## Number of students year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
6411	5988	5430	4882	4358

File Description	Document
Institutional Data in Prescribed Format	<u>View Document</u>

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

2018-19	2017-18	2016-17	2015-16	2014-15	
1568	1258	1126	1068	1022	

File Description		Document	
	Institutional Data in Prescribed Format	View Document	

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

2018-19	2017-18	2016-17	2015-16	2014-15
9588	9706	10753	12602	12685

File Description		Doc	Document		
	Institutional Data in Prescribed Format	Viev	/ Document		

## Number of revaluation applications year-wise during the last 5 years

2018-19	2017-18	2016-17	2015-16	2014-15
1044	806	1039	393	334

## 3.3 Teachers

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

2018-19	2017-18	2016-17	2015-16	2014-15	
1039	1110	950	901	773	

File Description	Document
Institutional Data in Prescribed Format	<u>View Document</u>

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

2018-19	2017-18	2016-17	2015-16	2014-15
356	443	408	368	325

File Description	Document
Institutional Data in Prescribed Format	<u>View Document</u>

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

2018-19	2017-18	2016-17	2015-16	2014-15
356	443	408	368	325

File Description	Document
Institutional Data in Prescribed Format	<u>View Document</u>

## 3.4 Institution

## Number of eligible applications received for admissions to all the programs year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
97547	99717	105293	97392	190181

File Description	Document
Institutional Data in Prescribed Format	<u>View Document</u>

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

2018-19	2017-18	2016-17	2015-16	2014-15
778	731	723	650	578

File Description	Document
Institutional Data in Prescribed Format	View Document

## Total number of classrooms and seminar halls

Response: 96

Total number of computers in the campus for academic purpose

Response: 2327

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

2018-19	2017-18	2016-17	2015-16	2014-15
3958	4275	3692	2948	2786

## 4. Quality Indicator Framework(QIF)

## **Criterion 1 - Curricular Aspects**

## 1.1 Curriculum Design and Development

1.1.1 Curricula developed /adopted have relevance to the local/ national / regional/global developmental needs with learning objectives including program outcomes, program specific outcomes and course outcomes of all the program offered by the Institution

## **Response:**

Institute has Boards of Studies for UG and PG programmes. Each respective board takes into consideration the institutional Vision and Mission while preparing curriculum and subsequent revisions are put up before the Academic Council which consists of Institute members and external subject experts and university representatives as per the guidelines issued by UGC for Autonomous Colleges. Their inputs are implemented in the revision of syllabus.

Sreenidhi Institute of Science and Technology was conferred the autonomous status in the year 2010-11 by UGC and since then, the institute has been formulating its own syllabi in the following methodology as explained below.

The PEOs are aligned with the Mission of the department and in turn the Mission of the department is in line with the Mission of the Institution. For undergraduate programs, NBA has given guidelines with regard to Program Outcomes (PO) in the form of Graduate Attributes. Program outcomes must match with all the Program Educational Objectives(PEOs) of the program. We at Sreenidhi Institute of Science and Technology, adhere to and follow these NBA guidelines while defining the outcomes of the various courses offered.

Each of the courses offered for a program is matched with at least one program outcome of the programme concerned. Thus, all the program outcomes are covered by all the courses offered for a particular program. Feedback is taken from all stakeholders in modification of existing courses and introduction of new courses based on the local needs and at the national and global needs.

Depending upon the units in each of the course, a course outcome can be defined. It means that there must be some competency developed in the student when a particular unit of a subject is completed. For simplicity the college has adopted a method of defining a course outcome for each of the unit in a course. It is necessary that the course outcomes must match with the program outcomes desired after completing a subject.

Thus the process of matching course outcomes with program outcomes and program outcomes with program educational objectives, Program educational objectives with mission statements of the branch concerned and the mission statement of the branch concerned must be in line with mission of the Institution has been carried out. The curriculum is developed by the Boards of Studies concerned and subsequently approved by the Academic Council on which the above process of Course Outcomes, Program Outcomes, Program Educational Objectives is carried out. The Program Educational Objectives are to be in line with the Mission Statement of the Department which in turn is in line with the Mission of the Institute.

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The autonomous curriculum, scheme of instructions, syllabus are set to meet basic skills expected from a graduate, industrial needs, local demand and in view of global needs and current technology courses.

To enrich the knowledge in certain specializations of the main stream as per the current technology needs, a number of streams of Professional Electives are introduced. Open Electives can be offered as per AICTE guidelines.

File Description	Document
Any additional information	View Document

## 1.1.2 Percentage of programs where syllabus revision was carried out during the last five years

Response: 100

1.1.2.1 How many programs were revised out of total number of programs offered during the last five years

Response: 17

1.1.2.2 Number of all programs offered by the institution during the last five years

Response: 17

File Description	Document
Minutes of relevant Academic Council/BOS meeting	View Document
Details of program syllabus revision in last 5 years	View Document
Any additional information	<u>View Document</u>

## 1.1.3 Average percentage of courses having focus on Employability/ Entrepreneurship/ Skill development during the last five years

Response: 93.42

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

2018-19	2017-18	2016-17	2015-16	2014-15
861	1080	908	864	738

File Description	Document
Program/ Curriculum/ Syllabus of the courses	<u>View Document</u>
MoU's with relevant organizations for these courses, if any	View Document
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	View Document
Average percentage of courses having focus on employability/ entrepreneurship	View Document
Any additional information	View Document

## 1.2 Academic Flexibility

## 1.2.1 Percentage of new Courses introduced out of the total number of courses across all Programs offered during last five years

Response: 16.97

1.2.1.1 How many new courses are introduced within the last five years

Response: 810

1.2.1.2 Number of courses offered by the institution across all programs during the last five years

Response: 4773

File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Institutional data in prescribed format	View Document

## 1.2.2 Percentage of programs in which Choice Based Credit System (CBCS)/Elective course system has been implemented

Response: 100

1.2.2.1 Number of programmes in which CBCS/ Elective course system implemented.

Response: 15

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File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Institutional data in prescribed format	View Document

#### 1.3 Curriculum Enrichment

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

## **Response:**

#### HUMAN VALUES AND PROFESSIONAL ETHICS IN HIGHER EDUCATION

## Course Objectives This course intends

- 1. To help students appreciate the essential 'VALUES' and 'SKILLS' to ensure sustained happiness and prosperity, the core aspirations of all human beings.
- 2. To facilitate the development of a Holistic perspective among students towards life, profession, happiness and prosperity based on an understanding of the Human reality. Such a holistic perspective forms the basis of Universal Human Values and movement towards value-based living.
- 3. To highlight plausible implications of such a Holistic understanding in terms of ethical human conduct, trustful and mutually fulfilling human behavior and mutually enriching interaction with Nature.

#### **Course Outcomes:**

- 1. Learns being a human, understands values and purpose of education
- 2. Understands the importance of harmony.
- 3. Improves Learning capabilities and communication skills.
- 1. Understands and appreciates the importance of personality development and yoga for a holistic life.
- 2. Understands the essence of Morals, Ethics, Values and Social responsibilities for successful life.

### GENDER SENSITIZATION, VALUES, ETHICS AND YOGA

### **Course Objective:**

To develop students' sensibility with regard to issues of gender in contemporary India, provide a critical perspective on the socialization of men and women, introduce students to information about some key biological aspects of genders, expose the students to debates on the politics and economics of work and help students reflect critically on gender violence. Identify the core values that shape the ethical behavior of an engineer, to create an awareness on professional ethics and Human Values and to appreciate the

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rights of others.

#### **Course Outcomes:**

- 1. To develop students' sensibility with regards to issues of gender in contemporary India.
- 2. To provide a critical perspective on the socialization of men, women and transgender, to acknowledge women's role at home and at work and to have a wider understanding of Ethics.
- 3. To help students reflect critically on gender violence.
- 4. Perceive gender literacy and understand the importance of gender perspective.
- 5. Understand rules and principles set by the society in a customary way.

#### ENVIRONMENTAL AND APPLIED CHEMISTRY

To learn the preparation methods and applications of commercial and conducting polymers, to understand the Ecosystems and Bio diversity, sustainable development and green technology, the natural resources available and over exploitation of resources. To develop the concepts and preparation methods of fuels and to have idea about pollution and to learn the control methods for pollution.

#### **Course Outcomes:**

- 1. Explain methodologies that facilitate greater control over product and enable novel polymer architectures.
- 2. Understand the concept, Structure and Function of Eco system in order to save the environment.
- 3. Use the techniques in sustainable development with regard to Water, Wasteland reclamation, Environmental management and green technology
- 4. Identify the natural resources available and how to save the resources.
- 5. Apply techniques in preparation and use of energy sources in industries.
- 6. Apply Control measures of Urban and Industrial waste to reduce pollution.

File Description	Document
Any additional information	<u>View Document</u>

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

Response: 179

1.3.2.1 Number of value-added courses are added within the last five years

Response: 179

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File Description	Document
List of value added courses	View Document
Brochure or any other document relating to value added courses	View Document

## 1.3.3 Average percentage of students enrolled in the courses under 1.3.2 above

Response: 63.66

1.3.3.1 Number of students enrolled in value-added courses imparting transferable and life skills offered year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
5820	4871	3129	2172	1920

File Description	Document
Any additional information	<u>View Document</u>

## 1.3.4 Percentage of students undertaking field projects / internships

Response: 58.82

1.3.4.1 Number of students undertaking field projects or internships

Response: 3771

File Description	Document
List of programs and number of students undertaking field projects / internships	View Document

## 1.4 Feedback System

- 1.4.1 Structured feedback received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni 5) Parents for design and review of syllabus Semester wise /year-wise
- A. Any 4 of above
- B. Any 3 of above
- C. Any 2 of above
- D. Any 1 of above

<b>Response:</b>	A.	Any	4 of	f above

•		
File Description	Document	
Any additional information	View Document	
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management	View Document	
URL for stakeholder feedback report	View Document	

- 1.4.2 Feedback processes of the institution may be classified as follows:
- A. Feedback collected, analysed and action taken and feedback available on website
- B. Feedback collected, analysed and action has been taken
- C. Feedback collected and analysed
- D. Feedback collected

Response: A. Feedback collected, analysed and action taken and feedback available on website

File Description	Document	
Any additional information	<u>View Document</u>	
URL for feedback report	View Document	

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

## 2.1 Student Enrollment and Profile

## 2.1.1 Average percentage of students from other States and Countries during the last five years

Response: 3.64

2.1.1.1 Number of students from other states and countries year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
177	166	192	207	213

File Description	Document
List of students (other states and countries)	<u>View Document</u>
Institutional data in prescribed format	View Document
Any additional information	View Document

## 2.1.2 Demand Ratio(Average of last five years)

Response: 74.81

2.1.2.1 Number of seats available year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
1738	1779	1662	1602	1381

File Description	Document	
Demand Ratio (Average of Last five years)	View Document	
Any additional information	View Document	

## 2.1.3 Average percentage of seats filled against seats reserved for various categories as per applicable reservation policy during the last five years

Response: 100

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

2018-19	2017-18	2016-17	2015-16	2014-15
778	731	723	650	578

File Description	Document
Average percentage of seats filled against seats reserved	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, after admission and organises special programs for advanced learners and slow learners

## **Response:**

SNIST identifies the knowledge, needs and skills of the student before the commencement of the B.Tech. programme, based on the ranks obtained in EAMCET examination and percentage of marks scored by students in 10+2 examination. Diagnostic tests are carried out in Maths and English, to ascertain the deficiencies in these subjects.

The knowledge / needs and skills of students are also identified considering their social backgrounds / rural and urban areas and vernacular media. Based on the above in formation gathered, the college initiates the following remedial measures for slow learners.

- 1) Three week orientation program on Improving Learning Capabilities comprising of learning, Effective Listening, Reading and reviewing, Time Management, Memory Management, Discovering own strengths and weaknesses individually, etc. The syllabus of AICTE for orientation program are included and covered.
- 2) A structured Mentoring and Training Program is in place based on the performance in the diagnostic tests. Every student is provided with a faculty mentor and the scheduled interactions are recoded. During the course of interaction, the SWOC (Strengths Weakness, Opportunities, and Challenges) analysis is recorded. Based on the interactions, SWOC and regular performance, students abilities are identified and necessary counseling, training are provided to cater the needs of slow and advanced learners. Subject experts and class in-charges through classroom interaction and counseling classes, identifies the strengths and weakness of individual students. In addition the HODs with the help of Mentors identify students who are slow learners and having back-logs.
- 3) For a given academic year when results are declared, if the pass percentage of students is less than 85% in any subject, those students are offered to undergo remedical classes, in order to prepare for the supplementary examination. Additionally, tutorial classes are conducted for those subjects which are found to be difficult for slow learners in all branches of B. Tech.

Based in I mid marks for a particular semester, extras classes are conducted in those subjects where students marks are less than 50%

The knowledge / needs and skills of students are also identified considering their social backgrounds / rural and urban areas and vernacular media. Based on the above information gathered, the college initiates the additional remedial measures:

- 1. A Technical dictionary of scientific words used in Maths, Physics and Chemistry in Telugu with their corresponding words in English are given to Telugu medium students in 10 +2.
- 1. Lateral entry students are taught programming skills in C and C++ which facilitate them to take a course in Java in the second year itself.

The institute takes steps in micro-planning of class room seating of the students to have pleasant learning experience. Students are made to sit in groups of three side by side comprising of one bright student, one average and one below average student. When a below average student gets a doubt, he/she may get quick clarification within the group itself.

The diagnostic test was conducted for the I st year B.tech students who have admitted in 2019-20 acadamic year. The report of diagnostic test is given as attachment.

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

## 2.2.2 Student - Full time teacher ratio Response: 18.01

File Description	Document
Any additional information	<u>View Document</u>

### 2.2.3 Percentage of differently abled students (Divyangjan) on rolls

**Response:** 1.87

2.2.3.1 Number of differently abled students on rolls

Response: 120

File Description	Document
List of students(differently abled)	<u>View Document</u>
Institutional data in prescribed format	View Document
Any other document submitted by the Institution to a Government agency giving this information	View 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

## **Response:**

The institution is committed towards the pursuit of excellence. The college is an autonomous institution which strives for Outcome based Educational Philosphy. All acdemic procedures are developed and oriented towards student-centric learning environment. The students have the benefit of experential, participative and problem solving methodology as explained hereunder.

## **Experiential learning**:

**1.Project Based Learning(PBL):** The faculty members in the respective departments have extensive interaction with the students during their (i) Group project, (ii) Major project, (iii) Industry oriented project and (iii) Lab experiments (iv) Lab projects

It may be noted that all these projects are part of the main curriculum of the B. Tech. program.

**2.Internships:** Students of the B. Tech. II and III year undergo rigorous internships in industries during their summer vacation. The work experience in the Industrial Internship period greatly enhances their skill and knowledge. Institute help them finding suitable internship positions and monitor their punctuality, learning, discipline and performance in their end certificate testing.

## 3. Industrial Visits / Field Trips

Students are regularly taken to Industrial visits relevant to their courses to have realistic Industrial exposure and practical knowledge to reputed industries like BHEL,NFC,Power Plants, NRSA etc., Also, students understand the requirements and demands of Industries. In a given academic year two Industrial visits are planned in each semester by the departments.

## 4. Computer-Assisted learning:

The college has full fledged Digital library facility for the students to use Internet and consult online technical journals for searching technical information / literature required for their projects, seminars and other academic requiremets which forms part of their degree requirement. The video lessons available from SONET, NPTEL and video lectures prepared by faculty of the college are regularly viewed by the students in the library to enhance their learning.

## **Participative learning:**

## 1. Technical paper writing and seminars:

This is a mandatory course in every semester. For the seminar, a student under supervision of a faculty member has to collect literature on a topic and critically review the literature and prepare a presentation on the same.

- 2. Technical Club activities: Students take annual membership in various college clubs based on their personal interest and passion. Highly active clubs such as Robotics, SAE-SNIST, Electronics Club, Bachpan Prayas, Infinity Club, IC2 are the in the campus where students spend valuable amount of time in learning and creating new projects.
- **3. Sreenidhi Hub:** Students use this as a platform to implement their new ideas and consolidate as groups. Students team up in the Hub to work, discuss and brain storm on latest topics to build innovative projects. The college supports and encourages students to participate in several National and International innovative Competitions.

### **Problem solving methodology:**

- 1. Tutorials: where critical problems are made to be solved by students independently. GATE exam problems are solved by the students.
- 2. Hackathons: Institute offers opportunity to exhibit the skills acquired by the students by conducting Hackathons typically lasting upto 48 hours. In such events a large number of students are made to engage in collaborative project to solve real world problems.

File Description	Document
Link for Additional Information	View Document

## 2.3.2 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc.

Response: 100

## 2.3.2.1 Number of teachers using ICT

Response: 356

File Description	Document	
List of teachers (using ICT for teaching)	View Document	
Any additional information	<u>View Document</u>	
Provide link for webpage describing the "LMS/ Academic management system"	View Document	

#### 2.3.3 Ratio of students to mentor for academic and stress related issues

Response: 18.01

2.3.3.1 Number of mentors

Response: 356

File Description	Document	
Any additional information	View Document	

## 2.3.4 Preparation and adherence to Academic Calendar and Teaching plans by the institution

#### **Response:**

### Preparation and Finalization of the Academic Calender

The institutional academic calendar is prepared by the College Academic Committee (CAC), based on the criteria that the number of working days per semester should be at least 90 days. Taking into this consideration the number of weeks of the instruction is arrived at as 16 weeks. Besides this , 8 days are provided for conducting 2 mid sessional examinations . A duration of 10 days is provided for conduct of external examinations in practicals and also for preparation for end semsester examinations in theory subjects. Additional 2 ½ weeks is needed for conduct of these end semester theory examinations. In all 22 weeks are required for instruction, internal and external examinations besides providing about 1 week of preparation. Apportioning another 22 weeks for the II semester and 6 weeks per year of vacation as per UGC regulations, there are couple of weeks remaining , which will take care of holidays declared by the Governement of Telangana. This academic schedule prepared by College Academic Committee and is presented to Joint Board of Studies Meeting and the decision of Joint Board is informed to the Chairmen , Boards of Studies for various B. Tech. And M. Tech branches of Engineering and Technology besides MBA program.

## **Preparation of Teaching Plans**

This is carried out by the teachers who are alloted various subjects at Under Graduate and Post Graduate levels in each of the departments with the mutual understanding of all teachers to handle the different

subjects offered in the concerned semester.

The college has a practice of preparation of course files for each semester of various branches at UG and PG level and distribute to the students at the begining of the each of the academic semesters. In the course file, the syllabus, the lecture schedule, a list of multiple choice questions/ Fill up the blanks / short answer questions, and long answer questions. This will give to the students as well as the new faculty members with regard to the level of teaching that has to be maintained while teaching each of the unit.

Each subject is divided into six units which has to be completed with 16 weeks of instruction. On the average, each subject will get about 60 hours of instruction and thus each unit will get about 10 hours of instruction. With this guidance, the teachers will prepare lesson plans so that, there will not be a situation where the teachers might take much more than 10 hours of instruction for a particular unit which will lead to lesser number of hours available for other units. There can be a little variation from the estimated 10 hours of instruction per unit but it should not be more than 2 or 3 hours.

The acadamic calender is made avilable to students before commencement of classwork and is made avilable through https://www.sreenidhi.edu.in/pagecontents.php?catid=12&scatid=266

## 2.4 Teacher Profile and Quality

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

Response: 100

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years	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. during the last five years

Response: 22.52

### 2.4.2.1 Number of full time teachers with Ph.D. year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
114	100	85	62	66

File Description	Document
List of number of full time teachers with PhD and number of full time teachers for 5 years	View Document
Any additional information	View Document

## 2.4.3 Teaching experience per full time teacher in number of years

Response: 12.26

2.4.3.1 Total experience of full-time teachers

Response: 4363

File Description	Document
Any additional information	<u>View Document</u>

## 2.4.4 Percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the last five years

Response: 45.53

2.4.4.1 Number of full time teachers receiving awards from state /national /international level from Government recognised bodies year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
16	5	36	63	53

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

## 2.4.5 Average percentage of full time teachers from other States against sanctioned posts during the last five years

Response: 44.55

2.4.5.1 Number of full time teachers from other states year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
169	198	191	152	138

File Description	Document
List of full time teachers from other state and state from which qualifying degree was obtained	View Document
Any additional information	View Document

### 2.5 Evaluation Process and Reforms

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

Response: 27.2

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

2018-19	2017-18	2016-17	2015-16	2014-15
28	28	27	25	28

File Description	Document
List of programs and date of last semester and date of declaration of result	View Document
Any additional information	View Document

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

**Response:** 0.03

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

2018-19	2017-18	2016-17	2015-16	2014-15
7	5	1	0	0

File Description	Document
Any additional information	View Document

# 2.5.3 Average percentage of applications for revaluation leading to change in marks during the last

# five years

# Response: 11.64

2.5.3.1 Number of applications for revaluation leading to change in marks year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
121	109	125	38	38

File Description	Document
Any additional information	<u>View Document</u>

# 2.5.4 Positive impact of reforms on the examination procedures and processes including IT integration and continuous internal assessment on the examination management system

# **Response:**

Positive Impact of reforms on the examination procedures and processes:

S.No	Name of the reform	Positive impact due to the
	i	ntroduced reform
1.	Appointing of internal squads,	1. periodic rounds by the team
	floor incharges by the Chief	improvises amongst the
	Superintendent (Principal)	students and invigilators
		2. Drastic reduction in the
		number of malpractice
		cases.
2	On Screen Marking (Digital	1. Transparency is maintained.
	<b>Evaluation</b> ) of <b>External</b>	2. In this method papers will
	Examination Papers	not be sent physically to the
		evaluator. Instead scanned
		copy of the paper will be
		displayed to the authorized
		evaluator.
		3. Paper allotment to the
		evaluator will be done on
		random basis.
		4. Same paper will not be
		allotted to the evaluator in
		any other evaluation
		(.i.e.Evaluation-2,
		Evalaution-3 or
		Revaluation).

		6. 7. 8. 9.	Minimum time for evaluation of the script is 6 minutes and no limit for maximum.  For each day given evaluator can evaluate only 50 scripts (either in single subject or in all the subjects allotted).  At the maximum specific evaluator can evaluate 300 scripts only.  Evaluation can be done parallel for each script, so that result can be declared within a short span of time.  We can get question wise marks also for NBA purpose (CO and PO calculation).  In case of revaluation no need to search for the script manually.  Answer scripts can be
			stored digitally for longer period of time.
3	Surveilance Camers are installed	1.	Restricted entry to
	in all the class room, labs,		unauthorized persons
	corridors and out side the		premises
	building to cover the entire area	2.	Continuous monitoring of
	of the college.		invigilation duties by the
		2	faculty  Cyphing of malarasticas by
		3.	Curbing of malpractices by the student
	Introudcing multiple sets (Two)	1	Leakage of question paper
4	marouncing mulupic scis (1 WU)		Leakage of question paper
4		1.	
4	of question papers for both		is prevented.
4	of question papers for both internal and external		is prevented. Random selection of
4	of question papers for both		is prevented.
4	of question papers for both internal and external		is prevented. Random selection of question paper just before
4	of question papers for both internal and external		is prevented. Random selection of question paper just before the examination by the Chief Superintendent improves the quality of the
4	of question papers for both internal and external		is prevented. Random selection of question paper just before the examination by the Chief Superintendent improves the quality of the conduction of the
4	of question papers for both internal and external		is prevented. Random selection of question paper just before the examination by the Chief Superintendent improves the quality of the conduction of the examination by our
4	of question papers for both internal and external examinations.	2.	is prevented. Random selection of question paper just before the examination by the Chief Superintendent improves the quality of the conduction of the examination by our Institution.
5	of question papers for both internal and external examinations.  Preparation of scheme of	2.	is prevented. Random selection of question paper just before the examination by the Chief Superintendent improves the quality of the conduction of the examination by our Institution. Evaluation procedure will
5	of question papers for both internal and external examinations.	2.	is prevented. Random selection of question paper just before the examination by the Chief Superintendent improves the quality of the conduction of the examination by our Institution.

File Description	Document
Any additional information	View Document
Link for Additional Information	<u>View Document</u>

- 2.5.5 Status of automation of Examination division along with approved Examination Manual A. 100% automation of entire division & implementation of Examination Management System (EMS)
- B. Only student registration, Hall ticket issue & Result Processing
- C. Only student registration and result processing
- **D.** Only result processing

**Response:** A. 100% automation of entire division & implementation of Examination Management System (EMS)

File Description	Document
Current manual of examination automation system and Annual reports of examination including the present status of automation	View Document
Current Manual of examination automation system	<u>View Document</u>
Any additional information	View Document
Annual reports of examination including the present status of automation	View Document

### 2.6 Student Performance and Learning Outcomes

2.6.1 Program outcomes, program specific outcomes and course outcomes for all programs offered by the Institution are stated and displayed on website and communicated to teachers and students

#### **Response:**

The programme outcomes (POs) for each under graduate and post graduate programme and for each course are well defined based on the NBA guidelines. For simplicity, there are six outcomes that are defined for each of the six objectives which are based on each of the six chapters.

The awareness regarding these outcomes be it programme outcomes (POs) or programme specific outcomes (PSOs), are discussed with all the concerned stake holders at length at various levels of interaction through awareness programmes for the students, awareness programmes for the faculty and also during parent- teacher interactions which occur on a regular basis.

The POs are published and disseminated in the following ways:

- Displayed in the offices of the departments.
- Published in college website and student handbooks.
- Explained to students and their parents as part of the induction program.
- Explained to newly joined faculty and staff members during a staff orientation program.

### **Program Outcomes**

The curriculum comprises courses related to basic sciences, humanities and social discipline, Engineering & Technology, professional / open electives, projects and seminars. Each course contributes to learning outcomes reflecting the skills and competence that are required at the time of graduation.

The Program outcomes (POs) reflect the ability of graduates to demonstrate knowledge in fundamentals of Basic Sciences, Humanities and Social Discipline, Engineering & Technology and practically apply the knowledge for the benefit of the society. The graduates must adhere to professional and ethical responsibilities in pursuit of their careers. These outcomes also enable the graduate to pursue higher studies and engage in R&D for a successful professional career.

The POs crystallize in the attainment of Program Educational Objectives (PEOs) which will help the graduate to perform his or her duties, professional responsibilities, design, development, production and testing of novel products, dealing with finances and project management. These capabilities are reflected in PEOs.

For example, the program outcomes and Program Specific Outcomes (PSOs) are given as under for Mechanical Engineering program. For all other remaining programs, the course wise COs, Program outcomes POs, PSOs and PEOs are given as attachment uploaded.

#### Program Outcomes of B. Tech, Mechanical Engineering

The graduate will demonstrate by the end of the program, knowledge in basic sciences, mathematics, ability to identify, formulate, solve problems, ability to design, conduct experiments, analyze, interpret data, ability to conduct investigations, to solve problems, possess skills to use modern engineering and IT tools. The graduate will also know the impact of Engineering solutions on the society, professional engineering solutions in environmental context, ethical responsibilities, critique writing report, how to apply management principles, manage projects in multidisciplinary environments, self-education and have the ability to engage in life - long learning.

#### **Program Specific Outcomes (PSOs)**

- Apply principles of basic sciences and engineering to mechanical systems.
- Model, Analyze, Design and Realize mechanical components and processes.
- Be prepared to work professionally and ethically in Thermal, Design and Manufacturing areas of

### Mechanical engineering.

Program outcomes and course outcomes for all programs are given in the SSR which is available in the Institute website

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

# 2.6.2 Attainment of program outcomes, program specific outcomes and course outcomes are evaluated by the institution

#### **Response:**

The Program Educational Objectives are aligned to the Mission of the department and in turn the Mission of the department is in line with the Mission of the Institution. The program educational objectives are matched with the mission of the program concerned.

For undergraduate programs, NBA has given guidelines with regard to program outcomes (PO) in the form of Graduate attributes. There are 12 graduate attributes defined by NBA and the departments concerned of various colleges are to define their own program outcomes. However the program outcomes must match all the program educational objectives of the program. We at Sreenidhi Institute of Science and Technology, adhere to and follow these NBA guidelines while defining the outcomes of the various courses offered.

Each of the subjects offered for a program is matched with at least one program outcome of the branch concerned. Thus, all the program outcomes are covered by all the subjects offered for a particular program. Depending upon the units in each one of the subject a course outcome can be defined. It means that there must be some competency developed in the student when a particular unit of a subject is completed. For simplicity the college has adopted a method of defining a course outcome for each of the unit in a subject. It is necessary that the course outcomes must match with the program outcomes desired after completing a subject.

Thus the process of matching course outcomes with program outcomes and program outcomes with program educational objectives, Program educational objectives with mission statements of the branch concerned and the mission statement of the branch concerned must be in line with mission of the Institution has been carried out. Only when this process is completed successfully the curriculum development part of the work is processed further.

A series of all faculty meetings are conducted in correlation with the set of courses which require modifications and deletion/addition and are prepared in accordance with the curricula of some of the leading academic institutes in India and abroad.

PO Attainment for 2015-19 Graduated batch of EEE and CSE Programmes are given below. Detailed information about the procedure, PO attainments, PO attainment levels of other programs are given in the attached documents.

						B.Tech	– EEE		B.Tech – EEE				
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO	10	I	
Direct	77.68	76.66	77.76	78.93	80.84	87.34	84.19	89.48	83.84	85.	90	7	
Attainment													
Indirect	89.99	86.32	83.65	86.24	87.72	84.53	86.45	87.02	85.30	86.	14	8	
Attainment													
Overall	80.15	78.59	78.94	80.39	82.21	86.78	84.64	88.99	84.13	85.	95	8	
Attainment													
					B.Tecl	h – CSE							
Direct	73.95	76.497	78.481	77.679	78.393	72.082	87.511	77.467	77.357	89.6	541	6	
Attainment													
Indirect	69.516	68.71	69.237	67.738	68.187	64.811	85.369	66.579	55.891	54.8	329	8	
Attainment													
Overall	75.99	78.08	79.72	78.98	79.55	74.49	87.09	79.05	78.85	88.	63	7	
Attainment													

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

### 2.6.3 Average pass percentage of Students

Response: 98.68

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

Response: 1498

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

Response: 1518

File Description	Document	
List of programs and number of students passed and appeared in the final year examination	View Document	
Any additional information	<u>View Document</u>	
Link for annual report	View Document	

# 2.7 Student Satisfaction Survey

2.7.1	Online	student	satisfaction	survev	regarding	teaching	learning i	orocess
		Deader	Dettibletti		1 0 5 0 1 1 1 1 5			

**Response:** 

# Criterion 3 - Research, Innovations and Extension

### 3.1 Promotion of Research and Facilities

# 3.1.1 The institution has a well defined policy for promotion of research and the same is uploaded on the institutional website

**Response:** Yes

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

### 3.1.2 The institution provides seed money to its teachers for research (average per year)

Response: 30.81

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

2018-19	2017-18	2016-17	2015-16	2014-15
79.47	17.85	23.97	16.30	16.47

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

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

Response: 8

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

2018-19	2017-18	2016-17	2015-16	2014-15
3	1	0	1	3

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

## 3.1.4 Institution has the following facilities

- 1. Central Instrumentation Centre
- 2. Animal House/Green House / Museum
- 3. Central Fabrication facility
- 4. Media laboratory/Business Lab/Studios
- 5. Research / Statistical Databases
- A. Any four facilities exist
- **B.** Three of the facilities exist
- C. Two of the facilities exist
- D. One of the facilities exist

**Response:** A. Any four facilities exist

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

#### 3.2 Resource Mobilization for Research

3.2.1 Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution during the last five years (INR in Lakhs)

Response: 222.51

3.2.1.1 Total Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution year-wise during the last five years(INR in Lakhs)

2018-19	2017-18	2016-17	2015-16	2014-15
80.60	71.09	59.72	0	11.10

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

# 3.2.2 Number of research centres recognised by University and National/International Bodies

### **Response:** 5

### 3.2.2.1 Number of research centres recognised by University and National/International Bodies

Response: 5

File Description	Document
Names of research centres	<u>View Document</u>
Any additional information	<u>View Document</u>

### 3.2.3 Percentage of teachers recognised as research guides

**Response:** 0.79

### 3.2.3.1 Number of teachers recognised as research guides

Response: 15

3.2.3.2 Number of full time teachers worked in the institution during the last 5 years

Response: 1900

File Description	Document
Details of teachers recognized as research guide	View Document
Any additional information	View Document

# 3.2.4 Number of research projects per teacher funded, by government and non-government agencies, during the last five year

### Response: 0.1

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

Response: 39

File Description	Document
Supporting document from Funding Agency	<u>View Document</u>
link to funding agency website	View Document

# 3.3 Innovation Ecosystem

# 3.3.1 Institution has created an eco system for innovations including Incubation centre and other initiatives for creation and transfer of knowledge

#### **Response:**

SNIST believes inculcating innovation among students there by contributing to nation's development that solves societal problems. Strong Academics, Industry relevant training, Emerging technology knowledgethrough R&D and Professional mindset with human approach are the essential attributes that determine thesuccess of our institute.

In the year 2006, Prof. Naga Sreenivasa, Professor of Training and Placement has conceived an idea that the spirit of innovation has to be incubated in the minds of the students and the college has conducted the very first innovative idea and solutions competition. From then onwards, the college has been encouraging the students to come out with innovative solutions for the problems that are faced by the students and the society at large.

- SNIST is recognized by DSIR, Govt. of India asScientificandIndustrialResearchOrganization(SIRO)–2009totilldate.SNISTmanagementishighly encouraging and promoting in-house Academic Research activities. SNIST management also works with reputed industries to forge alliance to offer consultancy and advance training programs in the emerging fields which necessitates the faculty to take up Advance Research problems.
- The Sreenidhi's SNIST-Hub has been recognized as the Host Institute facility under Development Commissioner New Delhi Scheme to Support Entrepreneurship and Managerial Development of SMEs through Incubators. Under this scheme each approved student innovative idea isto receive 15L of funding from the Directorate Commissioner MSME for the startup.
- Sreenidhi-Hub Vision "To emerge as a renowned ecosystem that develops indigenous technologies by spurring idea to prototype to product with focus to nurture and launch techstartups to achieve global success".
- SNIST has an active Institute Innovation Council under the Ministry of MHRD'sInnovation Cell where in students and faculty participate and organize events such as Leadership Talks Series,

Ideation Sessions, PrototypeCompetition and Smart India Hackathon.

- The institute is also a recognized Innovation lab under the mentorship of the Incubation Center of JNTU Hyderabad wherein students participate in the Technology Bootcamps, Ignite Problem Identification sessions, Regional & Central Hackathons and Acceleration Programs
- The dedicated to SNIST-Hub is around 5000 Sq.ft which comprises of 10 cubicles as office space for business incubates, Tinkering/Sandbox lab Space, Technology Room, Director and Manager meeting room and training rooms for students.SNIST-Hu provides access to centralized facility, support with seed capital, facilitate networking and other services for the startups to be successful and independent. The Hubadvisory committee is formed comprising of eminent engineers from industry, scientists from research lab, senior manager of bank, Dean and Director from the host institute. The advisory committee is approved by Board of Governors of the institute.
- SNIST entered into MoU with Wadhwani Foundation, USA for Entrepreneurship Development. Under this agreement certification training program on entrepreneurship isoffered to faculty and students.
- The institute has also signed MoU with the TiE (The Indus Entrepreneurs Hyderabad Chapter) and Telangana-Hub (popularly known as "T-Hub") to provide student mentorship, networking with top entrepreneurs&interaction angel investors and training workshops.

In addition, to the above-mentioned activities institute conducts Student Innovative Idea competition every semester that is evaluated by an appointed external committee comprising of industry experts and research lab scientists.

File Description	Document
link for additional information	View Document

# 3.3.2 Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry

- Academia Innovative practices during the last five years

Response: 144

3.3.2.1 Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
41	28	28	26	21

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

# 3.3.3 Number of awards for innovation won by institution/ teachers/ research scholars/students during the last five years

# **Response:** 143

3.3.3.1 Total number of awards for innovation won by institution/teachers/research scholars/students year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
67	60	8	5	3

File Description	Document
List of innovation and award details	View Document
e- copies of award letters	View Document
Any additional information	View Document

# 3.3.4 Number of start-ups incubated on campus during the last five years

# **Response:** 6

3.3.4.1 Total number of start-ups incubated on campus year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
2	1	2	1	0

File Description	Document
List of startups details like name of startup, nature, year of commencement etc	View Document
e- sanction order of the Institution for the start ups on campus	View Document
Contact details of the promoters for information	View Document
Any additional information	View Document

# 3.4 Research Publications and Awards

# 3.4.1 The institution has a stated Code of Ethics to check malpractices and plagiarism in Research

**Response:** Yes

File Description	Document
Institutional data in prescribed format	View Document

# 3.4.2 The institution provides incentives to teachers who receive state, national and international recognition/awards

**Response:** Yes

File Description	Document
e- copies of the letters of awards	<u>View Document</u>
Any additional information	View Document

# 3.4.3 Number of Patents published/awarded during the last five years

**Response:** 28

# 3.4.3.1 Total number of Patents published/awarded year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
11	8	6	3	0

File Description	Document
List of patents and year it was awarded	View Document
Any additional information	View Document

# 3.4.4 Number of Ph.D.s awarded per teacher during the last five years

Response: 3.07

3.4.4.1 How many Ph.Ds are awarded within last 5 years

Response: 46

3.4.4.2 Total number of teachers recognised as guides during the last 5 years

Response: 15

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 web site	View Document

# 3.4.5 Number of research papers per teacher in the Journals notified on UGC website during the last five years

Response: 3.31

3.4.5.1 Number of research papers in the Journals notified on UGC website during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
377	284	192	203	201

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

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

Response: 0.47

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

2018-19	2017-18	2016-17	2015-16	2014-15
54	35	35	24	29

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

# 3.4.7 Bibliometrics of the publications during the last five years based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

# **Response:**

File Description	Document
BiblioMetrics of the publications during the last five years	View Document

# 3.4.8 Bibliometrics of the publications during the last five years based on Scopus/ Web of Science - hindex of the Institution

### **Response:**

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

# 3.5 Consultancy

# 3.5.1 Institution has a policy on consultancy including revenue sharing between the institution and the individual

Response: Yes

File Description	Document
Soft copy of the Consultancy Policy	View Document
Minutes of the Governing Council/ Syndicate/Board of Management related to Consultancy policy	View Document
URL of the consultancy policy document	View Document

# 3.5.2 Revenue generated from consultancy during the last five years

Response: 43.07

3.5.2.1 Total amount generated from consultancy year-wise during the last five years (INR in Lakhs)

2018-19	2017-18	2016-17	2015-16	2014-15
12.16	9.21	21.70	0	0

File Description	Document
List of consultants and revenue generated by them	View Document
Audited statements of accounts indicating the revenue generated through consultancy	<u>View Document</u>
Any additional information	View Document

# 3.5.3 Revenue generated from corporate training by the institution during the last five years

### **Response:** 3

3.5.3.1 Total amount generated from corporate training by the institution year-wise during the last five years (INR in Lakhs)

2018-19	2017-18	2016-17	2015-16	2014-15
3	0	0	0	0

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

### 3.6 Extension Activities

3.6.1 Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the last five years

#### **Response:**

The college promotes a well-knit institution – neighbourhood network in which students acquire service training. The institution has a reputation of sensitizing staff and students to participate actively in the service centric programmes. Yamnampet, a small village situated at a short distance from the college had been adopted by the college to undertake service activities in the village. A comprehensive socio-economic survey is conducted by the students in the village to identify the problems and needs of the local people. On the basis of the survey, the programmes are prepared in such a way which would cater for better agricultural, educational, socio-medical and health- care and awareness among the villagers.

- NSS Special Camps are organized every year in the adopted village where activities like bushcutting, laying of approach roads, desalting of water bodies, weeding out unwanted plants in water tanks, digging of drainage canals, bridging erosion/breaches in irrigation canals and plantation are carried out by NSS volunteers.
- The patients from the neighbouring villages are being provided free medical treatment by the College Health Centre. The patients are identified by the students and they help them in reaching the Health Centre. Free medicines are also distributed to the patients.
- Students are always ready to donate blood in case of emergency. NSS volunteers had visited a number of hospitals to voluntarily donate blood.
- Students conduct cleanliness, health and hygiene awareness programmes in and around nearby villages, hospitals, bus stand and railway station.
- NSS volunteers of the college always take an active participation in the time of natural calamities like cyclone, flood, and other socio backward necessities.
- The students identify the school drop outs and help them in getting enrolled into the government schools after counselling their parents.
- The extension activities have made significant impact on the community. The NSS and YRC Unit of the institution created awareness about HIV/AIDS, sexually transmitted diseases, importance of breast feeding, Blood Donation, addressing issues related to Polio, malnutrition of children and pregnant mothers, family planning, empowerment of women, elimination of child labour, and environmental protection in the community. Such activities have helped in improvement of health and lifestyle of the community and created scientific temper among the rural population.
- The college has an NSS Unit with a trained faculty member as the Programme Officer. 100 students are enrolled with the Unit. The NSS unit of the college actively participated in the following community services:
- (1) Cleaning the environment (2) Plantation of trees and plants,
- (3) Construction of roads (4) Legal Aid Programmes,
- (5) Literacy mission (6) Community health programmes,
- (7) Blood donation camps, (8) Prevention of drug addiction and rehabilitation of victims,
- (9) Welfare of women and childcare and (10) HIV/AIDS Awareness programmes
- (11) Free Eye Camps (12) Free General Medical Camps

Youth Red Cross (YRC) Unit, the wing of Red Cross Society was formed in the college to inculcate the spirit of social service, friendship and the ideals of peace into the minds of the students.

File Description	Document
Any additional information	<u>View Document</u>
link for additional information	View Document

# 3.6.2 Number of awards and recognition received for extension activities from Government /recognised bodies during the last five years

**Response:** 75

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

2018-19	2017-18	2016-17	2015-16	2014-15
13	22	18	10	12

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

# 3.6.3 Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the last five years

**Response:** 86

3.6.3.1 Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
20	15	23	14	14

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

# 3.6.4 Average percentage of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the last five years

Response: 90.7

3.6.4.1 Total number of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. yearwise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
5810	4652	4815	4775	4302

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

### 3.7 Collaboration

# 3.7.1 Number of Collaborative activities for research, faculty exchange, student exchange per year

**Response:** 53.6

3.7.1.1 Total number of Collaborative activities for research, faculty exchange, student exchange yearwise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
85	74	57	24	28

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

# 3.7.2 Number of linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc. during the last five years

**Response:** 744

3.7.2.1 Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
280	229	128	58	49

File Description	Document
e-copies of linkage related Document	<u>View Document</u>
Details of linkages with institutions/industries for internship	View Document
Any additional information	View Document

# 3.7.3 Number of functional MoUs with institutions of National/ International importance, Other Institutions, Industries, Corporate houses etc., during the last five years (only functional MoUs with ongoing activities to be considered)

Response: 64

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

2018-19	2017-18	2016-17	2015-16	2014-15
32	13	8	6	5

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



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

# 4.1 Physical Facilities

4.1.1 The institution has adequate facilities for teaching - learning. viz., classrooms, laboratories, computing equipment, etc

### **Response:**

4.1.1 The institution has adequate facilities for teaching - learning. viz., classrooms, laboratories, computing equipment, etc:

Sreenidhi Institute of Science and Technology was established an area of ten (10) acres with a total built up area of four lakh fifty seven thousand nine hundred and eighty square feet (4,57,980) which is sufficient for satisfying the norms of AICTE with regard to class rooms, tutorials, laboratories etc. There are in total Ninety two (92) number of classrooms which are well equipped with LCD and wifi/LAN facilities. With these visual aids smooth and effective functioning of teaching and learning process is carried out. There are one hundred and ten (110) well equipped laboratories for both under graduate and post graduate programs which satisfy the AICTE norms.

The details are given hereunder:

a. Class rooms and Tutorials room and Studios:

Class	No. of Rooms	
UG class rooms	83	
PG class rooms	7	
MBA class rooms	2	
Total class rooms	92	
Tutorial rooms	21	

All class rooms are e-class rooms with provision of LCD, Desk Top, Wi-Fi facility and connectivity to campus server.

- b. Three (3) Drawing Halls are provided as per the requirements of AICTE
- c. Two (2) seminar halls are required as per norms against which four (4) seminar halls are made available.

#### d.Establishments of Studios

The studios for recording of lectures given by the senior teachers identified by concerned Head of the department. These lectures are specific fully focussed on the syllabus applicable for our college for various branches as approved by concerned Boards of Studies and Academic Council. The list of lectures given by

each of the professorsare given as shown as in the.

#### e. Laboratories:

The total number of Laboratories given here under:

S. No.	Name of the Dept.	No. of Laboratories
1	Civil Engineering	8
2	EEE	10
3	Mech. Engineering	12
4	ECE	23
5	CSE	16
6	IT	15
7	ECM	9
8	BT	3
9	Service department labs	8

f. Computing Equipment:

2327

- g. SAP A full-fledged SAP Section is established by the college at a cost of Rs. 2 crore. It is being used for Management Information System in the following areas:
- i. Human Capital Management
- ii. Material Management
- iii. Student Life Cycle Management
- iv. Financial Accounting and Controlling
- v. Plant Management

File Description	Document
Any additional information	<u>View Document</u>
Link for Additional Information	View Document

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

#### **Response:**

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

Sports center in SNIST has established in the year 1997 i.e., from inception of the college. It has various

facilities for indoor and outdoor games such as Table-Tennis, Carom and chess as indoor games, Full-fledged Football field located at the entry area of the campus, Cricket ground, Kabaddi, volley ball courts, basket ball court and tennicoit court. More than that it has facilities for Gym and Yoga centers. Approximately 200 students will use sports and gym facilities every day. The following are the details:

# a. Outdoor game facilities

Full-fledged Football field located at the entry area of the campus, Cricket ground, Volleyball Courts beside, Basketball Court, Tennicoit Court, Kabaddi Court

## b. Indoor game facilities

Table Tennis - Three tables

Carom and Chess - 10 Carom Boards with coins & strikers and 15 Chess Boards with coins.

#### c. Gym

College provides 12 station gym to the students such as Dumbbells, Weights (Plates), Treadmill, Flat Bench press, Inclined bench press, Declined bench press, Leg press, Squat press, Surface sheets, Barbells (rods), Chest Press and Military press.

### d. Providing Sports materials

In addition to the above facilities, the college is providing Cricket Bats like English Willow to practice and participate in outside tournaments inter and intra-college and also high quality glaze balls and pads, thighpads, elbow guards, rib guards, helmets, and also footballs, high quality volley balls, shuttle rackets(Yonex), Basket balls, Tennicoit rings, etc.

#### e. Yoga and Cultural Activities

Two halls are made available for cultural activities for boys and girls separately.

#### **Details of the Indoor Games for Boys**

Sl. No.	Name of the Item	Total no. present	Area in Sq.mt.	Locati	ion
1	Table Tennis	4	10X8 = 80	New li	brary
2	Carroms	8	8X8 = 64	New li	brary
3	Chess	15	8X8 = 64	New li	brary
4	Gym	12 Stations	14X6 = 84	New li	brary

#### **Details of the Indoor Games for Girls**

SI	Name of the Item	Total no. present	Area in Sq.mt.	Location	
No.					

1	Table Tennis	2	10X8 = 80	New	
				Block Ce	llar
2	Carroms	6	8X8 = 64	New li	brary
				Cellar	
3	Chess	10	8X8 = 64	New li	brary
				Cellar	

# **Details of the Physical Director Chamber**

SI	Name of the Item	Total no. present	Area in Sq.mt.	Location
<b>No.</b> 1	Physical Director Chamber	3	4.8X6.2 = 30	New library Block Cellar

# **Details of the Outdoor Games for Boys**

Sl	Name of the Item	Total	no.Area in Sq.mt.	Location
		present		
No.				
1	Football filed	1	72X100 = 7200	Infront of Canteen
2	Volleyball	2	30X30 = 90	Beside First year block
3	Cricket Ground	1	110X70 = 7700	Near Mechanical Labs
4	Basket ball	1	35X20 = 700	Near New Computer
				Labs
5	Throw ball	1	20X15 = 300	Beside First year block
6	Tennicoit	1	10X6 = 60	Beside First year block
7	Kabaddi	1	16X12 = 192	Beside First year block

File Description	Document
Any additional information	View Document
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

Response: 100

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 96

50. 70

File Description	Document
Number of classrooms and seminar halls with ICT enabled facilities	View Document
Any additional information	View Document
Link for additional information which is optional	View Document

# 4.1.4 Average percentage of budget allocation, excluding salary for infrastructure augmentation during the last five years.

Response: 14.85

4.1.4.1 Budget allocation for infrastructure augmentation, excluding salary year-wise during the last five years (INR in Lakhs)

2018-19	2017-18	2016-17	2015-16	2014-15
435.48	769	1259.12	230.56	93.03

File Description	Document
Audited utilization statements	View Document
Any additional information	View Document

# 4.2 Library as a Learning Resource

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

#### **Response:**

ILMS Software - Libsoft 12.0 is a multi user package designed and developed by a team of library professionals and software professionals for effective management of a library from all aspects. This package has been designed to handle huge volumes at lightening speed thus saving manpower. Libsoft is a Windows /Web based software and it runs in any Windows environment and hence it has excellent Graphical User Interface.

**Nature of Automation - Fully Automated** 

Version – Libsoft 12.0

Year of Automation - 2002 year

The following are the salient features of the software

- Absolutely user friendly software that requires minimum training.
- Simplified package, which requires minimum user interaction.
- Multi user package with database loaded in the server. The individual nodes across different departments can share the data from the server.
- Create/Modify/Delete different users (Password Protected), with restrictions set by the administrator at the time of creation.
- Generates Purchase Orders that can be sent by E-mail directly. The system keeps track of the items arrived as against the items ordered.
- Automatic tracking of items for ordered, received, reminders etc.
- Multiple Material (Books, Reports etc.) and Media (CD, Audio/Video cassette, Microfilm, Maps etc) cataloging, all in one place. Find & Replace facility for spelling correction.
- Easy way to installation of Libsoft 9.8.0 with inbuilt security files.
- Announcements (News/Messages) will be displayed to all members in individual member web OPAC account.
- Members can check their transaction details(title of their transaction, due date, fine amount and reserved material details) through web OPAC.
- Simplified serials module with auto reminder.
- Semi-Automatic DDC (Dewey Decimal Classification) based Classification Number generation.
- Circulation with bar code interface wherein the user needs very few interaction with the system.
- Circulation settings for different materials with different cards and due days.
- Excellent multiple reservation facility to reserve the book which has been issued.
- Enhanced but Simplified search facility (Boolean search with like, =, <, >, <=, >= and <>

conditions) to locate books, members, purchase orders and Vendors quickly, Transactions can also be searched.

- Title of the Report, date and Time of report generation will be shown as Report heading.
- Graphical representation of Expenditure, Books in Demand, New Arrivals, Material distribution, Member transaction details, stock status etc. the way the user prefers.
- Membership card for Members/Users with Bar code.
- Automatic Bar code generation for Accession numbers for materials (Books, Journals etc.)
- Facility to track the Saved, Modified, Deleted and Circulated materials through Log entries for each action (Book Entry/ Circulation / Purchase Orders etc).
- Free tools for direct database interaction, and easy entry for fast data correction of material.

File Description	Document
Any additional information	<u>View Document</u>
link for additional information	View Document

# 4.2.2 Collection of rare books, manuscripts, special reports or any other knowledge resource for library enrichment

### **Response:**

# 4.2.2 Collection of rare books, manuscripts, special reports or any other knowledge resource for library enrichment:

Sreenidhi Institute of Science and Technology has good number (68) of rare books, manuscripts such as course materials, conference procedures and special reports such as hand books of government agencies, Ph.D thesis. The list of rare books, author name, edition, publisher and prices were provided in the additional information.

File Description	Document
Any additional information	<u>View Document</u>

### 4.2.3 Does the institution have the following

- 1.e-journals
- 2.e-ShodhSindhu
- 3. Shodhganga Membership
- 4.e-books
- 5. Databases

Any 4 of the above

Any 3 of the above

Any 2 of the above

Any 1 of the above

**Response:** Any 4 of the above

File Description	Document
Details of subscriptions like e-journals,e- ShodhSindhu,Shodhganga Membership etc	View Document
Any additional information	View Document

# 4.2.4 Average annual expenditure for purchase of books and journals during the last five years (INR in Lakhs)

Response: 49.29

# 4.2.4.1 Annual expenditure for purchase of books and journals year-wise during the last five years (INR in Lakhs)

2018-19	2017-18	2016-17	2015-16	2014-15
48.75	64.72	58.01	48.66	26.31

File Description	Document
Details of annual expenditure for purchase of books and journals during the last five years	View Document
Audited statements of accounts	<u>View Document</u>
Any additional information	View Document

# 4.2.5 Availability of remote access to e-resources of the library

Response: Yes

File Description	Document
Any additional information	<u>View Document</u>

# 4.2.6 Percentage per day usage of library by teachers and students

**Response:** 12

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

Response: 812

File Description	Document
Any additional information	View Document

### 4.3 IT Infrastructure

### 4.3.1 Institution frequently updates its IT facilities including Wi-Fi

#### **Response:**

Sreenidhi Institute of Science and Technology believes in the power of technology in the field of education and as a part of our vision to promote effective teaching learning process. The following facilities available and progression is going in IT facilities. The following are the IT facilities available:

- 1. Purchase and deployment of high end branded desktop machines replacing all old desktops.
- 2. Deployment of State of the art network architecture using Fiber connectivity between the academic blocks through individual VLANs for each block.
- 3. Deployment of SAP ERP (One of the world's top rated ERP solutions) for centralized control of finances, academics, payroll, inventory, transport and student life cycle management.
- 4. Deployment of WIFI facility in all open areas and academic blocks.
- 5. Deployment of WIFI in collaboration with JIO Network.

#### **ICT** infrastructure consists of:

- Wi-Fi facility on the campus
- Web-based instruction through Audio Visual Aids
- LCD projectors provided in all class rooms and seminar halls
- PPTs to facilitate efficient teaching learning process

### **Internet Bandwidth Availability:**

As the requirement increase bandwidth is increased for the use of students and faculty. At present bandwidth of 350 MBPS is available.

Deployment of biometric attendance devices for staff and students for attendance tracking and payroll management.

The faculty use ICT infrastructure for delivery of lectures, assignments, simulation of some practicals, monitoring and guidance on project works, etc. The faculty passes on the information to the student community from time to time by uploading the content such as lesson plans, objectives, course outcomes, unit-wise course material, PPTs of the lessons, references required, essential links, books for further study, assignment questions and their date of submission. The faculty members have access to all learning resources including online and internet services right in their staff rooms. Normally Faculty members prepare power point presentations (PPTs), and with the help of LCDs, OHPs, Models and Charts, facilitating an effective Teaching-Learning process.

File Description	Document
Any additional information	<u>View Document</u>
link for additional information	View Document

# 4.3.2 Student - Computer ratio

Response: 2.76

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File Description	Document
Any additional information	<u>View Document</u>

# 4.3.3 Available bandwidth of internet connection in the Institution (Lease line ) ?50 MBPS

35 MBPS - 50 MBPS

**20 MBPS - 35 MBPS** 

**5 MBPS - 20 MBPS** 

**Response:** ?50 MBPS

File Description	Document
Any additional information	View Document

# 4.3.4 Facilities for e-content development such as Media Centre, Recording facility, Lecture Capturing System (LCS)

**Response:** Yes

File Description	Document
Facilities for e-content development such as Media Centre, Recording facility,LCS	View Document
Any additional information	<u>View Document</u>
Link to photographs	View Document

# 4.4 Maintenance of Campus Infrastructure

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

**Response:** 83.8

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

2018-19	2017-18	2016-17	2015-16	2014-15
3474	3449	2374	2668	2667

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

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

### **Response:**

The physical infrastructure is one of the vital components that made teaching learning an enriching experience. Maintenance of all Physical, Academic and Sports facilities of the college is very important for ensuring effective teaching learning system. The following procedures established for maintaining and utilizing these services.

### 1. Laboratories and Computers:

There are in-charges, responsible for maintaining and utilizing the laboratories. There are situations where the syllabi are revised which results in adding some new experiments in various lab subjects and the Lab in-charges shall prepare the list of equipment or software to be procured at least one semester ahead. Some of the laboratories have excess number of lab setups—when compared to the requirement and if there is any set up failure the students will not suffer.

Each Laboratory has one Lab Assistant and the No. of sessions that they have to handle per week are limited to 8 – 9 sessions out of 12 sessions available per week. This is helping the Lab Assistants to keep all the lab facilities to be in proper condition. The equipment suppliers give warranty for 1 – 3 years and after expiry of warranty period if any trouble arises either the suppliers or other service providers are requested to attend to the same. It is a practice in the college to thoroughly check with regard to the performance of each of the experimental setups twice in a year during the semester breaks. The college is providing the facility of purchase of enough spares so that the Lab in-charges can change any component which fails by drawing from the stock. Stock registers are maintained for each of the Laboratories so that enough spares are available and stock is verified in regular intervals.

#### 2. Library:

It is fully automated (computerized) for issue/circulation and access of library resources. The library has an archives section. The Library has a committee headed by a Dean and one representative from each department. They meet whenever required and discuss about the new books required for the Library and also to purchase new editions of important books. They also suggest subscription to new journals whenever required. The college has introduced a Book Lending Scheme which is helping the students who have all the text books required in a semester at a very reasonable Book lending fee. Enough provision is made by the college for purchase of new books and also for subscribing to new journals. SC / ST students are given the facility to borrow more No. of books when compared to others.

The college has large number of general books which are helpful to students for appearing GATE, GRE, TOEFL exams. The required books and journals are provided for a section of Library established for Civil Services Aspirants Club, the first of its kind in the State of Telangana.

#### 3. Class Rooms:

As stated already every class room is an e-class room and maintenance of equipment such as a desk top, LCD, Audio System etc. in a good condition for which a Computer maintenance section is established in the college. A Security System is also arranged in each class room which is kept in the memory for the next 30 days, so that a review of class room discipline, effectiveness in teaching, etc. are recorded in a couple of cameras. After providing this Security System the exam system also has been strengthened.

### 4. Maintenance of Sports and Games Facilities:

As stated above the college is providing necessary budget for maintenance of indoor and outdoor games facilities and our college uses for conducting inter college sports and games competitions. The participation fee for the students and also their TA, DA are provided by the college when they are participating in various inter college competitions. Many awards are won by our students in various competitions held at University level, State level and also in All India level.

File Description	Document
link for additional information	View Document

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

# **5.1 Student Support**

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

Response: 49.58

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

2018-19	2017-18	2016-17	2015-16	2014-15
3237	3017	2711	2376	2111

File Description	Document
Upload self attested letter with the list of students sanctioned scholarships	View Document
Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years	View Document

# 5.1.2 Average percentage of students benefited by scholarships, freeships, etc. provided by the institution besides government schemes during the last five years

Response: 0.55

5.1.2.1 Total number of students benefited by scholarships, freeships, etc provided by the institution besides government schemes year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
60	32	11	23	27

File Description	Document
Any additional information	<u>View Document</u>

### 5.1.3 Number of capability enhancement and development schemes –

- 1. Guidance for competitive examinations
- 2. Career Counselling

- 3. Soft skill development
- 4. Remedial coaching
- 5. Language lab
- **6.Bridge courses**
- 7. Yoga and Meditation
- 8. Personal Counselling

7 or more of the above

Any 6 of the above

Any 5 of the above

Any 4 of the above

**Response:** 7 or more of the above

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

# 5.1.4 Average percentage of students benefited by guidance for competitive examinations and career counselling offered by the institution during the last five years

Response: 82.02

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

2018-19	2017-18	2016-17	2015-16	2014-15
5301	5898	4315	3674	3234

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 Average percentage of students benefited by Vocational Education and Training (VET) during the last five years

Response: 21.04

# 5.1.5.1 Number of students attending VET year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
1436	1422	1003	912	955

File Description	Document
Details of of students benefited by Vocational Education and Training (VET)	View Document
Any additional information	<u>View Document</u>

# 5.1.6 The institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases

**Response:** Yes

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

# **5.2 Student Progression**

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

Response: 74.99

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

2018-19	2017-18	2016-17	2015-16	2014-15
1023	647	1098	911	771

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

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

Response: 6.31

5.2.2.1 Number of outgoing students progressing to higher education

Response: 99

File Description	Document
Details of student progression to higher education	View Document

# 5.2.3 Average percentage of students qualifying in State/ National/ International level examinations during the last five years (eg: NET/ SLET/ GATE/ GMAT/ CAT/ GRE/ TOEFL/ Civil Services/State government examinations)

Response: 100

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

2018-19	2017-18	2016-17	2015-16	2014-15
179	139	105	79	87

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

2018-19	2017-18	2016-17	2015-16	2014-15
179	139	105	79	87

File Description	Document
Upload supporting data for the same	<u>View Document</u>
Number of students qualifying in state/ national/ international level examinations during the last five years	View Document

# 5.3 Student Participation and Activities

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

Response: 71

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

2018-19	2017-18	2016-17	2015-16	2014-15
16	25	9	9	12

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

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

### **Response:**

The various student council & representative committees are:

#### **Class Review Committee**

Every Class of the Degree Program shall have a Class Review Committee, consisting of Faculty and Students. Student members of class review committee assist the DAC (Departmental Academic Committee) in the process of academic plan implementation of every subject in a semester.

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# **IQAC**

Student members of IQAC help to propagate quality policies adopted by the institution among the student fraternity and also help in projecting the student view point while taking any quality policy decision.

## Students' professional societies

Most of these societies are maintained completely by students under the guidance of faculty members according to a plan of activity.

# **Library Committee**

Student members of the library committee will assist in the procurement of text books, journals and other learning materials.

### **Alumni Association**

Every department attends to the coordination and liaison activity with alumni through the appointed students.

# **Anti-Ragging committee**

Student members assist the institution in implementing rigid anti-ragging measures so that the institute becomes ragging-free campus.

# **Grievance Redressed Cell**

The matters of harassment and suppression of any single individual are handled by grievance redressal cell. Student members can help other students to present the grievance in case the sufferers want the representation in absentia.

#### **NSS**

To inculcate awareness of social problems by the students, NSS activities are coordinated with large participation by students every year.

File Description	Document
Any additional information	<u>View Document</u>
Link for Aditional Information	View Document

# 5.3.3 Average number of sports and cultural activities / competitions organised at the institution level per year

**Response:** 67

5.3.3.1 Number of sports and cultural activities / competitions organised at the institution level year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
67	67	67	67	67

File Description	Document
Report of the event	<u>View Document</u>
Number of sports and cultural activities / competitions organised per year	View Document
Any additional information	View Document

# 5.4 Alumni Engagement

# 5.4.1 The Alumni Association/Chapters (registered and functional) contributes significantly to the development of the institution through financial and non financial means during the last five years

#### **Response:**

The main objective is to enroll all alumni as members of the association and facilitating active participation of the alumni in appropriate activities, events, and initiatives of the Institute. The SNIST Alumni Association is an official unit of the Institute with the primary objective of facilitating the pleasant and friendly interface to all the SNIST alumni and creating a single semantic web of SNIST fraternity. The SNIST is truly proud of its brilliant alumni who are currently placed all over the world and distinguished themselves in in Engineering and Technology sectors and the public sectors. The main aim of the SNIST Alumni Association is to coordinate the networking of all the alumni and to create a single global SNIST community for the benefit of institute as well as student community.

Mentorship: Alumni can play an active role in voluntary programs like mentoring students through their rich experiences in their areas of expertise for the benefit of the students and college. Help the student to understand the current scenarios in the industry, so that they can prepare themselves for securing suitable jobs. Some of the Alumni are also helping by providing internships in their organizations.

**Placements:** The alumni network of a college is one of the biggest sources of placement opportunities. So, the alumni can help students get placed at their respective organizations.

Networking Platform: Alumni network by itself is one of the best professional networking platforms

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available today.

**College Alumni Day:** Alumni meet takes place in the campus on every year Second Saturday in the month of February/March to provide a forum for the Alumni to interact with the Institute to bring together all the old students and the faculty of SNIST to share their experiences with each other.

**Online Alumni Survey:** This is collected to get information about their study and stay in the Institution. Feedback is collected from the alumni to update the curriculum which are suitable for present needs of industry and technology for the development of the college. Some of the reputed Alumni are also members of BOS

Database: This is to maintain and update the database of all the alumni and to interact with

File Description	Document
Link for Additional Information	View Document

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

#### ? 15 Lakhs

10Lakhs - 15 Lakhs

5 Lakhs - 10 Lakhs

2 Lakhs - 5 Lakhs

**Response:** 10Lakhs - 15 Lakhs

File Description	Document
Any additional information	View Document
Alumni association audited statements	View Document

# 5.4.3 Number of Alumni Association / Chapters meetings held during the last five years

### **Response:** 5

5.4.3.1 Number of Alumni Association /Chapters meetings held year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
1	1	1	1	1

File Description	Document
Report of the event	View Document
Number of Alumni Association / Chapters meetings conducted during the last five years	View Document
Any additional information	View Document



# Criterion 6 - Governance, Leadership and Management

# 6.1 Institutional Vision and Leadership

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

# **Response:**

### Vision of Sreenidhi:

To emerge as a leading Center for Technical Education and Research with focus on producing professionally competent and socially sensitive engineers capable of working in multidisciplinary global environment.

### Mission of Sreenidhi:

- 1. To train the students in the fundamentals of Engineering, Science and Technology and providing good academic environment to pursue undergraduate, Post graduate and Doctoral programmes in offered fields of Engineering and Technology as well as P.G. course in Management.
- 2. To be a continuous learning organization by developing strong liaison with Academia, R & D institutions and Industry for exposure to practical aspects of engineering and providing solutions to the industrial and societal problems for sustainable development. To imbibe project and finance management skills for entrepreneurship.
- 3. To inculcate team work, leadership, professional ethics, and the knowledge of use of modern tools, IPR issues among the graduates and encourage them to obtain patents.
- 4. To promote strong research culture in graduates for life-long learning, to explore the frontiers of knowledge and present papers at technical forums/publish in Journals at National and International levels.

The institution ensures participation of teachers in governance as per the guidelines issued by UGC for autonomous colleges.

Teachers are also absorbed into various committees as per UGC Guidelines viz. Governing Body, Finance Committee, Academic Council, Boards of Studies, that are constituted with luminaries in education, Industry and R & D organisations.

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- ? Teachers conduct various activities in accordance with the aim of the institute to offer wholesome education to students so that they become academically strong, physically robust, emotionally stable, socially responsible and spiritually enlightened
- 5. The institute has been successful in achieving the 12 graduate attributes for UG courses and those notified for post graduate attributes which the NBA has prescribed as essential.
- ? While developing the ability to solve complex engineering problems, the institute also helps the students to arrive at optimum solutions taking into consideration the possible damage to environment, public health and safety.
- ? Industry demands graduates with exceptional interpersonal skills, team skills, effective oral and written communication skills etc. The teachers of the institute guide and facilitate the formation of various student clubs and technical associations so that the industry warranted qualities are imbibed in the students.
- ? College is offering a stream of open electives on Entrepreneurship which imbibes project management and financial management skills.
- ? Lifelong learning habit must be imbibed in students, so that they can keep themselves abreast with the new concepts that emerge in science and technology in their profession life. For this purpose, the college has introduced subjects in which there is need for self-study so that it helps them to become lifelong learners.
- ? Code of Conduct for Students and Professional Ethics for various stakeholders such as Governing Body of College, Principal, Teachers, and Support Staff etc have been implemented in accordance with UGC guidelines / regulations and the same is also made available on the website.

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

### 6.1.2 The institution practices decentralization and participative management

### **Response:**

Ever since the college became autonomous in the year 2010, it has followed UGC Guidelines for constitution of various committees such as Governing body, Finance Committee, Academic Council, Boards of Studies etc., for effective functioning. Participative Management is ensured by decentralization with the participation of teachers and administrative staff in discharge of responsibilities of the various decision making committees. Bottom-up approach is practiced to make the decision making process more harmonized and inclusive.

# A case of budgeting year after year is presented as to how participative management is ensured

For every financial year the budgetary requirements are prepared by various departments and sections of the college, at least 3 months in advance of new financial year. The process of developing budget requirements of various departments, sections, administration, library, games and sports, infrastructure, consumable and non-consumable items is completed at the college level and submitted to the Finance Committee for their consideration and other recommendations are sent to the Governing body of the college for their kind consideration and approval.

The procedure for development of budget requirements for the college is explained here under.

# 1. Teaching departments

The departments follow the AICTE norms while estimating and proposing the requirements of additional faculty, staff, building space for class rooms and labs. They also work on budgets for purchase of equipment, software, recurring and non-recurring items including the annual maintenance costs for each of the laboratories and other requirements are considered by college academic committee by the HOD of concerned department about their budgetary requirements. The decisions of the CAC are sent by the Principal for approval of finance committee and Governing body .

# 2. Library section

Each department has one of its faculty members in the library committee. This member submits the requirement of books and journals to the library committee, for its consideration. The final list is forwarded to the Principal for approval of college academic committee and recommendations of each are sent by principal to higher committees.

# 3. Games and sports

The budget proposal including the costs of new equipment to be purchased and its maintenance expenses is prepared by the sports section headed by a professor of the college. Their proposal too goes to the Principal for further approvals.

#### 4. Administration Section

The expenses that would be incurred on faculty and staff salaries, activities like organizing seminars, conferences, are projected by the administration department seeking the approval of higher committees through the Principal.

All the departments send their proposals to the College Academic Committee (CAC), headed by the Principal. The recommendations of the CAC are further forwarded to the Finance Committee. After its approval, the proposals reach the Governing body for the final approval. Governing Body sends the ultimate approval to the Principal's office. Then the budget sanctioned is released by the Main Office to all departments.

Thus, bottom - up approach is used for estimation of budget needed with participation of teachers, non-

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teaching staff, College academic committee, finance committee and Board of Governors.

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

# **6.2 Strategy Development and Deployment**

# 6.2.1 Perspective/Strategic plan and Deployment documents are available in the institution

#### **Response:**

# Strategic plan for the college in the short Term of three to four years

- 1.To offer full time Ph. D. programs in all branches of Engineering and Technology including Sciences and Humanities: JNTUH has already recognized the departments of ECE and Mechanical Engineering as Research Centres. One Research Scholar has already joined. We shall pursue with JNTUH for recognizing the rest of departments as research centres.
- 2. The current needs of the industry and the model curriculum notified by AICTE must be considered by the Board of Studies and the Academic Council while revising the syllabi. Interaction with the R&D organizations and national level academic Institutions should be vigorously carried out before revising the syllabi. Prior to the introduction of the new syllabus, the teachers must be well equipped to handle the subject, through appropriate FDPs.
- 3. The institute intends to endeavour to strengthen existing Technology Incubation Centre and inculcate the spirit of Innovation and R & D in the Students under guidance of faculty and with the help of MSME, Govt of India and other agencies.
- 4. Blending contemporary research with teaching can yield effective transfer of knowledge. The college cherishes to promote such research among the teachers by giving financial assistance and awards to the faculty who publish papers in indexed journals.
- 5. The institute plans to organise national conferences in the topics of research areas in which it is strong so that the it can showcase its achievements and try to get information with regard to the research carried out in other institutions in India. This will be helpful to conduct further research by the faculty.

# Strategic plan of the college on long term basis of five years or more

- 1. To get approval from UGC for conferring Deemed to be University status to the college.
- 2. To undertake inter-disciplinary and flexible programs at different levels to meet the regional, national, and global aspirations.
- 3.R & D and Consultancy activity shall be pursued with more vigour. Regular Ph.D. scholars will be admitted and offer part time Ph.D. programs to faculty of other institutions, R & D personnel and engineers from industry.
- 4. To pursue R&D collaboration with institutions of national level and international levels for undertaking joint projects funded by national and international agencies.

The Perspective Plan and deployment of documents year after year from the year 2014 -15 to 2018-19 are available in the institution which are furnished in our college website

File Description	Document
Strategic Plan and deployment documents on the website	View Document

6.2.2 Organizational structure of the institution including governing body, administrative setup, and functions of various bodies, service rules, procedures, recruitment, promotional policies as well as grievance redressal mechanism

### **Response:**

### Organisation Structure of the Institution and constitution of various Bodies

Our Institute has adopted a line and staff organisation structure with an objective of achieving the vision and mission of the institution. Some staff in vital positions who are experts and experienced persons, support the Principal in balanced decision making.

Please see the organisation chart in which the lines of authority are clearly defined for achieving the objectives of the institution. Besides this, the Governing Body, Finance committee, Academic Council and Boards of Studies are constituted as per UGC regulations to help boost the growth of the institution. The Secretary chairs the Governing body and Finance committee; where as Principal chairs the Academic Council and heads of the departments chair the boards of studies. In all these bodies participation of teachers of the college is ensured. Governing body is the highest decision-making authority and the college must comply with the various responsibilities as approved by them.

# **College Academic Committee:**

The Principal is the executive authority of the institution to whom the heads of the various departments, Registrar, Administrative Officer, Training and Placement Officer are directly answerable. College Academic Committee is formed consisting of heads of the departments / sections and a couple of senior teachers from each department, Deans and Directors. This is the highest decision-making body at the college level with Principal as the Chairman. The decisions about College development, Examinations and Evaluation, Library and various infrastructure requirements, budgets, students' welfare, security and discipline and efforts for improving placement initiatives etc. are taken by this committee.

### **Departmental Committee:**

The Heads of the departments in turn carry out all the activities related to the departments by constituting a departmental committee, under which there are sub- committees to look into functioning of class work, lab and infrastructure requirements, maintenance, time tables, research and development etc.

#### **Other Committees:**

In addition to the aforesaid committees, there are some others viz. Discipline committee, Students welfare committee, Library Committee, Games and Sports committee, Grievance Redressal Committee, that are formed for the smooth functioning of the institute.

### **Bottom up approach**

The chain of decision making follows a bottom up approach which leads in the below mentioned manner.

Sub Committees – Departmental Committees – College Academic Committee – Finance Committee – Governing Body. (as mentioned in 6.1.2)

The various bodies are thus constituted for effective functioning of the institution.

#### Service Rules:

The service rules of the institute, which also contains various procedures can be viewed through our college website.

#### **Recruitment:**

Regarding recruitment, the AICTE guidelines are followed and advertisements are released in popular newspapers inviting applications from qualified candidates. A duly constituted selection committee conducts interviews and comes up with a merit list of candidates for the issue of Appointment orders by the Management.

File Description	Document
Link to Organogram of the Institution webpage	View Document
Link for Additional Information	View Document

### **6.2.3** Implementation of e-governance in areas of operation

- 1. Planning and Development
- 2. Administration
- 3. Finance and Accounts
- **4. Student Admission and Support**
- 5. Examination

All 5 of the above

Any 4 of the above

Any 3 of the above

Any 2 of the above

**Response:** All 5 of the above

File Description	Document
Screen shots of user interfaces	<u>View Document</u>
ERP Document	<u>View Document</u>
Details of implementation of e-governance in areas of operation Planning and Development, Administration etc	View Document

# 6.2.4 Effectiveness of various bodies/cells/committees is evident through minutes of meetings and implementation of their resolutions

# **Response:**

Various bodies are constituted for effective functioning of the institution. They are

- 1.GOVERNING BODY
- **2.ACADEMIC COUNCIL:**
- 3.BOARD OF STUDIES
- **4.FINANCE COMMITTEE:**
- **5.College Academic Committee(CAC):**

The decisions with regard to College development, Departmental development, Examinations and Evaluation, Continuous monitoring of Teaching Learning process, taking decisions on the matter for smooth conduct of the same, Library and various infrastructure requirements, budget, students' welfare, security and discipline and efforts for improving placement initiatives, Games and Sports and other extracurricular activities, Student Council activities etc. are taken care by this committee.

### **6.Departmental Committee:**

Based on the minutes of the meetings of our college academic committee(CAC) we present one activity that is successfully implemented

Name of the Activity: Deputation of Faculty for attending FDPs, Conference, Workshops and Reimbursement of Paper Publication charges. (2014-19)

CAC minutes of meetings 6.2\CAC Minutes.pdf

Detailed information about various committees and their responsibilities are given in the additional

information as well in the college website.

File Description	Document
Any additional information	View Document
Link for Additional Information	<u>View Document</u>

# **6.3 Faculty Empowerment Strategies**

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

# **Response:**

The institution has effective welfare measures for teaching and non-teaching staff as detailed hereunder:

# A. Welfare measures for teaching staff

# 1. Employees Provident Fund as per PF rules

- 2. Mediclain Health insurance
- 3. Employees state insurance
- 4. Maternity leave
- B) Welfare Measures for Non-Teaching members
- 1) Employees Provident Fund as per PF rules
- 2. Matrnity leave for women
- 3. Medi claim-Health Insurance, Employees Staff Insurance- ESI provides socio-economic protection to staff
- 4. Free health check-up campus
- 5. Central Dispensary with medical facilities
- 6. Free uniforms for class IV employees.

Detailed information about welfare measures is provided in additional information.

File Description	Document
Any additional information	<u>View Document</u>
Link for Additional Information	<u>View Document</u>

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

Response: 28.59

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

2018-19	2017-18	2016-17	2015-16	2014-15
140	133	120	98	57

File Description	Document
Details of teachers provided with financial support to attend conferences,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

**Response:** 36.8

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

2018-19	2017-18	2016-17	2015-16	2014-15
61	43	39	25	16

File Description	Document	
Reports of Academic Staff College or similar centers	View Document	
Details of professional development / administrative training programs organized by the Institution for teaching and non teaching staff	View Document	

# 6.3.4 Average percentage of teachers attending professional development programs viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Program during the last five years

Response: 55.58

6.3.4.1 Total number of teachers attending professional development programs, viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Programs year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
300	262	245	103	151

File Description	Document
IQAC report summary	View Document
Details of teachers attending professional development programs during the last five years	View Document

### 6.3.5 Institution has Performance Appraisal System for teaching and non-teaching staff

### **Response:**

# Performance Appraisal System for teaching staff

Institution has devised performance appraisal system in the year of establishment i.e. in the year 1997. Several seminars were conducted by the teachers themselves and they arrived at the criteria and the weightages to be given regarding overall performance of the teacher.

### 1. Student feedback:

Students give their feedback on the teachers in every subject on a form that has different parameters. The teacher's performance in the different subjects taught is assessed by the feedback given by the students in the last two months from the time of calculation. The average value is taken, and it is reduced to a value based on the weightage given to the student feedback in the overall assessment.

# 2. Success rate of the students (pass percentage):

The result of effective teaching learning process is the performance of the students in the subjects which are taught by a teacher. The average pass percentage in all subjects which a teacher has taught in first and second semester of previous academic year is calculated and given weightage.

### 3. Opinion of the Heads of the department:

The Heads of the Departments' opinion is sought regarding a teacher's contribution to the development of the department in the form of taking up responsibilities of labs, industrial visits, technical associations of students, Time Tables, student discipline etc.

# 4. Feedback of the Principal:

Besides teaching, teachers are also expected to participate in extension activities based on their interests and capabilities. They are expected to interact with the surrounding village sarpanch and see what services can be rendered by the college. Apart from this they are also supposed to contact various industries and seek their help in getting internships and projects for the students. Such endeavours may lead to consultancies. These activities by the teachers are assessed by the Principal.

#### 5. R & D contribution:

In today's competitive scenario, the applications and research area aspects of the topic being taught in the class room, has become essential. Hence weightage is given for Research publications also.

### 6. Consultancy:

Consultancy is given a lot of importance. Companies come forward to offer a consultancy project only based on the reputation of the teacher in that area. For this the teacher should have visited the industry and had a look at the problems there and come up with solutions. That is how the college has got consultancy projects from DRDL, CAS etc., which are under the umbrella of DRDO. Hence, it is felt some weightage must be given for the consultancy activity of the teacher concerned.

Summary of the various parameters and their weightages are given hereunder:

Sl.No	Parameter	Weight	Awards	
1.	Students feed back	35 %		
2.	Results in the subjects taught (success rate )	35 %	1. Higher cash award 85% and	above
			2. Lower cash award 75 to 8	4 %
			3. Certificate of Merit 65 to 7	74%
3.	Opinion of the HoD	10 %	1. Counselling	
			45 to 64%	

1.	Opinion of the Principal	5 %	1. A word of caution
			Less than 45%
1.	R & D Activity	10 %	
1.	•	5 %	
•		100 %	

# Performance Appraisal System non-teaching staff

•	•	•	•
1.	Feed back by lab incharge	1.	
1.	Feedback by HoD	1.	
1.	Feedback by the Principal	1.	Same as above
	•	1.	

# 6.4 Financial Management and Resource Mobilization

# 6.4.1 Institution conducts internal and external financial audits regularly

### **Response:**

Institution conducts internal and external financial audits regularly

### Response

Authentic procedure is followed for arriving at the budgetary requirements by the department concerned and their scrutiny is done at the college level, finance committee level and also by Governing body which normally avoids any audit objections that may arise.

# **Internal Auditing**

However, internal auditing is carried out by Mr. Sudhakar and his associates who will help not only in auditing the accounts but also in preparing documents which later on submitted to various authorities such as Income tax authorities, PF authorities and any other organisations where we need to submit our Audit Report.

# **External Auditing**

Our college requests a recognized firm consisting of qualified Chartered Accountants for doing the external auditing. At present, Shri. Ramanathan and Shri. Rao, Chartered Accountants, are extending their duties as our external auditors.

# **Audit Objections**

Meticulous procedures are followed by the departments for the purchase of equipments, software etc., by calling for quotations and after preparing a comparative statement. The quotation submitted by the vendors who have satisfied technical specifications only will be considered and the lowest bidder (L1) will be chosen for supply of the equipment or software or any other recurring or non recurring items. Inspite of that, there may be some errors and omit ions which can be detected at various levels and also by our internal auditor. There are no occasions so far, the audit objections aroused.

# Care taken by the individual departments / sections for preparing the budget requirements

The budgetary requirements for the succeeding financial year are prepared by the respective departments/sections detailing the requirements of each unit. They are finalized after estimating their costs. This may be even for development of new laboratories which are needed from time to time as per revised syllabus. This involves the establishment of new laboratories which need a lot of money for purchasing necessary equipment, software and other consumable items such as meters etc.

In the existing laboratories there will always be some replacements and requirement of consumable items to be purchased and we have to take into consideration additional costs for adding an experiment due to syllabus revision. Thus, every department projects the requirements and shall submit to the college for finalization of budgetary requirements not only for running laboratories but also for spending on salaries, welfare measures etc.

The document submitted to the finance committee will be finalized and will be presented to the finance committee for the approval of the budget for the next academic year for their consideration and approval. After consideration and finalization of budget by the finance committee, it shall be submitted to the Governing body for their perusal and approval.

As already explained earlier, the ICT – SAP section shall take care of all the requirements for purchase of various equipments, software and hardware and other expenses and the payments also will be made by them with endorsement of finance section.

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

Response: 3288

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

2018-19	2017-18	2016-17	2015-16	2014-15
1232	0	0	2056	0

File Description	Document
Details of Funds / Grants received from non- government bodies during the last five years	View Document

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

### **Response:**

#### **Mobilization of Funds**

- The major source of revenue for the college is the Annual fee collected from students.
- The fee is collected as per the fee & guidelines fixed by the State Fee Regulatory Authority.
- Mobilization of funds is also done through sponsored projects from DST, DRDO, AICTE, UGC, Industry sponsored projects by the faculty.
- Faculty can purchase the equipment and also meet the expenditure for travel etc., from the above grants.
- Funds are also mobilized through consultancy.

# Strategies for optimal utilization of financial resources:

- During the budget preparation in the institution all the academic and other section heads are requested to provide the annual budget requirements keeping in view of developing and updating of laboratories, computing facilities, library, teaching-learning process, training, extension activities, software etc.
- Monthly budget plan is also invited from all the sections for optimal planning of financial resources.
- Individual budget estimations are collected and Budget is prepared.
- The same is placed before the Finance committee and the committee in turn will deliberate and make necessary changes for a proper balance of receipts and expenditure.
- The same will be submitted to Governing Council for approval.
- The Governing council further approves the budget. Budget approvals will be communicated to the departments and sections.
- The Institution keeps track of the budget. In any unforeseen circumstances, non-budgeted amount is considered and allotted depending on the merit of the case.
- The budget utilization for the last five years is given as attachment.

# **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

### **Response:**

# **About IQAC**

**SNIST** has established IQAC in the year 2013 to ensure quality in academic and administrative activities, such as effectiveness in teaching, learning, evaluation and also encouraging the talent and merit in the faculty, teachnical staff and students.

### **IQAC Initiatives**

#### Practice – 1

# Students Feedback on Effectiveness in teaching by Faculty and Empowerment of teachers for Quality Assurance

The competency of various teachers while teaching that particular subject is not the same depending upon their background and experience. Similarly, certain skills that are required for effective teaching may not be the same when they are being recruited by the institution.

Students feedback is one of the important initiative taken by the IQAC with regard to effectiveness of the teacher in presenting the lecture in a methodical manner so that the students can understand and assimilate the content taught.

The various aspects on which the students give their feedback are:

- 1. Knowledge base of the teacher as perceived by the student
- 2. Communications skills, clarity in teaching and emphasis on concepts
- 3. Sincerity/Commitment to teaching / Regularity in taking classes
- 4. Uniformity in the coverage of syllabus
- 5. Effectiveness in controlling the class / Maintenance of discipline

# The students rate in all the five parameters Excellent (4), Good (3), Satisfactory (2) and Not Satisfactory (1)

Feedbacks are taken three times in a semester i.e at the end of four weeks, at the end of eight weeks and in the fifteenth week.

### Analysis of feedback and initiatives for improvement of Faculty

Suitable counselling is carried out and in extreme cases, the faculty is given opportunities to improve their teaching by deputing them to undergo Faculty development programs in effective teaching and refresher courses.

### **Best Practice - 2**

### Skills in Demand Analysis - Curriculum Development

IQAC taken this initiative in order to include in the curriculum certain skill requirements in engineering graduates in the changing scenario of the industry and shared with the departments to carry out skills in demand analysis at least once in a semester.

Teams of faculty are formed to study the skills for which advertisements are released in national level news

papers and also in job portals. The priority of skills required in the industry is arrived at based on number of times advertisements are released for a particular skill. More the number of advertisements higher is the priority for considering whether that particular skill is already covered in the curriculum or not covered.

If it is already covered in the curriculum the departments are advised to teach the skill required more at depth. In the event that skill is not covered in the curriculum the departments are requested to revisit the curriculum and include the same by requesting the Board of Studies in this regard. If this is not possible to change the curriculum during the year , a bridge course may be organized so that the present batch of students will not be at a disadvantage.

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

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

#### **Response:**

The two major academic reforms which have contributed to significant improvement in the Teaching-learning process of the institute are presented hereunder:

### (1) Introduction of Outcome Based Education (OBE)

The college has introduced OBE to reform the teaching, learning and evaluation processes. In OBE, the instruction and evaluation are based on certain outcomes which are required to be achieved by the students by the time they graduate a course. The NBA has prescribed that 12 graduate attributes are to be attained by the time the students complete their graduation.

Each course has 5/6 units and after the instruction of each, an outcome i.e. a certain capability is to be achieved by the students i.e course outcomes (COs). Hence, there are 5/6 COs for each subject and an analysis is made as to whether program outcomes of a course (POs) (a - k) are addressed by the COs or attainments are satisfactory.

Mapping is done by considering all COs of various courses offered by a particular program shall address all the POs. Some of the POs may be addressed by many COs of various courses while some POs may be addressed by only a couple of COs.

Similarly the program outcomes must address PEOs which signify the educational objectives for which the program concerned is offered. Thus, the mapping of POs to PEOs is carried out to see as to whether all PEOs are addressed by the 12 POs. At the next stage, it is ensured that the mission statements of a particular program are addressed by PEOs.

Direct assessment (80%) and indirect assessment (20%) tools are employed to evaluate the overall

attainment of POs. The attainment of POs is calculated based on the extent to which each CO is attained by the student of a particular program based on the performance in the tests, assignments, placements and admission to higher studies etc.( 80%) and also by the opinion of the employers' on the achievement level of the student (20%).

#### The Essence of OBE

When compared to conventional evaluation, OBE evaluates the performance of students based on the attainment of predefined outcomes for ensuring the graduate to be capable of carrying out the various tasks assigned to him/her in the industry.

The course-end survey, exit survey, alumni survey, parent's feedback and employer feedback will guide the institution/department in the revision of syllabi, teaching methodology and assessment process. This helps to prepare a student as per the contemporary requirements in the industry.

In SNIST, four UG programs namely Mechanical Engineering, CSE, ECM and Biotechnology were successfully accredited by NBA in 2015 under OBE. Subsequently, EEE and ME departments were also re-accredited. The implementation of OBE has resulted in the successful attainment of predetermined outcomes (>75% against a set goal of 70%) in all programs.

The concept of Blooms' Taxonomy is also kept in mind by the teachers in the instruction and evaluation.

### **Second practice**

Promotion of lifelong learning experiences and encouragement for conduct of research and innovations leading to publication of papers and submission for registering for patents

In the formulation of our curriculum, efforts are made by faculty and pioneers in technical education and industry to imbibe the qualities of life-long learning and inquisitiveness in conduct of research and innovation.

In general, industry experts who are involved in campus placements are expressing unhappiness with the written and oral communications of some UG students.

# Introduction of Technical Seminar in our curriculum every semester

With the introduction of technical seminars, the students are made to browse internet for various technical developments and efforts that are being made for improving the same. The seminars are made through power point presentation to improve their. Thus, communication skills by the time they go to final year.

In this process, the student will become lifelong learners and this attribute will help them not only during their studies but also in their professional careers. The fresh graduates will have to learn on their own any new skills that come in the IT sectors wherein the degree of obsolescence is very high.

# Encouragement to students for publishing technical papers and submission of applications for patents

This initiative of the Boards of Studies and Academic Council made the students to learn on their own such

as Group Projects, Internships, Industry oriented mini projects, and final year projects in two phases i.e. in IV year I and II semesters.

The students in their process of thinking beyond the text book knowledge is helping them to innovate and because of the encouragements given by the faculty and the management they are able to conceive new ideas and fabricate them which has resulted in new process or a design or a product which is found to be fit for submitting the same to Indian Patents Office for awarding a patent to the student or the student and his guide concerned. **This has helped the institute to submit 17 patent applications in the last 5 years.** 

The students work under the guidance of faculty in literature survey on a particular topic, the methodology of conducting research in that area and thus they will get some new ideas which can lead to conduct of R & D activity which results in publication of papers not only in conferences but also in indexed journals. The number of papers published by students during the last five years is about 750.

Any financial assistance and physical facility required for conduct of research or for developing patents by a student or a group of students is provided by the college Management. This experience will help the students to conduct investigations in the frontier areas of knowledge.

# Introduction of certain courses which will improve the employability of students

Based on a study made about the recruitment process in the present day industry a number of new subjects are integrated in our curriculum i.e logical reasoning, quantitative aptitude, language skills and soft skills to make the students proficient to get selected in the campus placement process.

File Description	Document
Any additional information	View Document

# 6.5.3 Average number of quality initiatives by IQAC for promoting quality culture per year

# Response: 7.4

responser /...

6.5.3.1 Number of quality initiatives by IQAC for promoting quality year-wise for the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
7	10	9	6	5

File Description	Document
Number of quality initiatives by IQAC per year for promoting quality culture	View Document
IQAC link	View Document

### 6.5.4 Quality assurance initiatives of the institution include

- 1. Regular meeting of Internal Quality Assurance Cell (IQAC); timely submission of Annual Quality Assurance Report (AQAR) to NAAC; Feedback collected, analysed and used for improvements
- 2. Academic Administrative Audit (AAA) and initiation of follow up action
- 3. Participation in NIRF
- 4.ISO Certification
- 5.NBA or any other quality audit

Any 4 of the above

Any 3 of the above

Any 2 of the above

Any 1 of the above

**Response:** Any 4 of the above

File Description	Document	
Details of Quality assurance initiatives of the institution	View Document	
Any additional information	View Document	
Annual reports of Institution	View Document	

# 6.5.5 Incremental improvements made during the preceding five years (in case of first cycle) Post accreditation quality initiatives (second and subsequent cycles)

#### **Response:**

**SNIST** is an Autonomous Institute since 2010 and the autonomty was extended till 2022, approved by AICTE, permanently afiliated to JNTUH, Hyderabad, Accredited by NAAC with 'A' Grade for the first time in 2013, is a premier Institution in Engineering, Technology and Management Education in the state of Telangana. It is the youngest institution to receive NBA accreditation in the year 2003.

We strive to continusouly improve and sustain quality in all the aspects of education. The Governing Body, College Academic Council (CAC), IQAC, BOS, Principal, the teaching fraternity, administration, the various departments, students and other stake holders jointly contribute towards making the college an institution pursuing excellence.

The following are the quality initiatives made by the institution in Curricular aspects. Outcome based approach has been implemented at SNIST. Careful study of the content of the curriculum and syllabi of all the UG/PG programs are offered by SNIST, a set of PEOs, Pos, PSOs and Cos have been diligently framed

for each program.

In the A.Y 2010-11 new regulations R10 in the lines of OBE was introduced.

- 1. Professional Ethics and Human Values and Environmental Studies courses are introduced as Mandatory courses. http://sreenidhi.edu.in/pagecontents.php?catid=12&scatid=498
- 2. Programme Elective Courses http://sreenidhi.edu.in/pagecontents.php?catid=12&scatid=273
- 3. Open Elective Courses http://sreenidhi.edu.in/pagecontents.php?catid=12&scatid=273
- 4. NPTEL courses https://nptel.ac.in/LocalChapter/statistics/1548/
- 5. Internship http://www.sreenidhi.edu.in/pagecontents.php?catid=11&scatid=315
- 6. Industry oriented Mini Projects from 2nd year B.Tech onwards
- 7. Ttraining on Soft skills
- 8. Logical reasoning
- 9. Quantitative aptitude

10.preparing the student for the competitive exams like GATE, GRE, TOFEL and civil services

More Number of Ph.D holders have been recruited.

Attainment of the COs, POs and PSOs are the recent additions.

Faculty/Students are utilizing the NPTEL and V-labs lectures and e-resources. A visual studio has been set up in the campus to record the video lectures by the in-house-faculty which are made available on the college website to improve pace learning of the students.

Eminent senior faculty members are appointed to hold key positions. Reputed academicians and renowned industry personnel visit the campus to enlighten the faculty and students.

Incubation Cell has been initiated by MSME.

A systematic procedure has been evolved to review the overall performance of the departments annually.

Research and Development & Advanced Research labs have been initiated. Increasing number of proposals have been submitted to various funding agencies.

A total amount of Rs.115 lakh has been generated through funded research programs.

Two departments are recognized as research centres by JNTUH.

The number of publications in peer reviewed journals with good Impact Factoris increased. Recognition

for the Institute is done with UGC 2(f)&12(B)status.

AcademicAutonomy sanctioned by UGC has been extended upto 2022

Infrastructure and Learning Resources New academic blocks, classrooms, labs, staff cabin sand seminar hall shave been built.

The internet band width has been increased from 100 MBPS to 200 MBPS with Wi-Fi.

Recipient of TEQIP – I and II.

File Description	Document
Any additional information	View Document

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

# 7.1 Institutional Values and Social Responsibilities

# 7.1.1 Number of gender equity promotion programs organized by the institution during the last five years

# Response: 21

7.1.1.1 Number of gender equity promotion programs organized by the institution year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
7	6	4	2	2

File Description	Document
Report of the event	View Document
List of gender equity promotion programs organized by the institution	View Document
Any additional information	View Document

# 7.1.2 Institution shows gender sensitivity in providing facilities such as

- a) Safety and Security
- b) Counselling
- c) Common Room

#### **Response:**

### 1. Safety and Security

The college explicitly and exhaustively follows safety norms in all aspects.

- The college has a strong security wing consisting of 80 personnel to safe guard the campus in all aspects. The entire campus is covered under enough lighting arrangements. Safety and Security for lady faculty and girl students and others is ensured by these personnel.
- Responsible faculty members are monitoring the campus and the corridors of all the buildings, classrooms and laboratories.
- Timely medical assistance for girl students and lady faculty is provided by a full time Doctor on campus.
- Transport facilities are promptly provided in case of emergency. First aid boxes are provided in all buses and laboratories.
- Grievance Cell is established, and investigations are carried out based on complaints received from Lady Faculty and girl students. Necessary action is taken. Complaints of any harassment are dealt

with preserving anonymity of the complainant.

Every classroom, corridor and different important points in the entire campus are equipped with CC
 Cameras. The recorded information is preserved for a couple of months so that the information can be of use to the enquiry committee constituted by the college in case any complaint.

# 1. Counselling

- Twenty girl students are allotted to one lady faculty member who is teaching the concerned section for counselling and mentoring.
- Counselling note books are made available to the Counsellors, one for every student, so that the details of counselling activity carried out by the faculty for each student is recorded. This book will be given to the new set of lady teachers who are teaching the section in the next semester. After completion of the next semester it will be passed on to the next and so on so that the counselling activity carried out by the faculty is available in one book itself for the entire period of study.
- The aspects which are taken care are monitoring of the attendance, academic performance in each subject as it progresses and whether there are any backlogs. The matter which concerns the academic progress of the student are discussed with the student for improvement and Parents are requested to come to college to meet the concerned Counsellor.
- The achievements of the students in academics, extracurricular and co-curricular activities, are recorded in the counselling note book which will be helpful for the teachers concerned while writing the recommendation letters.

#### **Common Room**

- Boys and Girls are provided separate common halls as per AICTE norms.
- A Common hall for lady teachers is also made available.

News Papers and periodicals are provided in the common halls so that they can keep themselves abreast of the changes happening in the world. The articles in the papers and magazines promote healthy discussions and sharing of ideas in the common halls among its users. This type of activity will be of great help to the students especially in the campus placements.

File Description	Document
Any additional information	View Document

# 7.1.3 Percentage of annual power requirement of the Institution met by the renewable energy sources

**Response:** 71.43

7.1.3.1 Annual power requirement met by renewable energy sources (in KWH)

Response: 750000

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# 7.1.3.2 Total annual power requirement (in KWH)

Response: 1050000

File Description	Document
Details of power requirement of the Institution met by renewable energy sources	View Document
Any additional information	View Document

# 7.1.4 Percentage of annual lighting power requirements met through LED bulbs

Response: 90

7.1.4.1 Annual lighting power requirement met through LED bulbs (in KWH)

Response: 99000

7.1.4.2 Annual lighting power requirement (in KWH)

Response: 110000

File Description	Document
Details of lighting power requirements met through LED bulbs	View Document
Any additional information	View Document

### 7.1.5 Waste Management steps including:

- Solid waste management
- Liquid waste management
- E-waste management

# **Response:**

- Transport arrangements are made for solid waste which is collected and sent to Jawahar Nagar Solid Waste Setup every day for their use to produce Electrical Energy from the waste.
- There is a common room for the lady faculty along with a girls' room in every block of the college. These rooms are equipped with an artificial incinerator for disposing sanitary napkins.
- Liquid waste management

### Response

• Drinking Water facility is arranged in every block through the water treatment plant installed in the campus. As there is maintenance problem with the RO plant, arrangements are made to buy treated

- water from Water Treatment companies nearby.
- Waste Water is drained through piping system to the STP and the treated waste water is used for watering the plants and the Green cover in the campus.
- Wastage of drinking water is restricted through proper monitoring.
- water is properly used to maintain the greenery in the campus as well as to provide ecologically aesthetic environment
- Proper drainage system is arranged for all the buildings of the campus

#### E-waste management

# **Response:**

- The E waste (like condemned batteries and damaged computers) of various laboratories and computer centres are disposed through outside agencies.
- The low configured computers are donated to nearby schools
- Other E-waste materials are properly disposed as per the usual practices.

Awareness programmes are initiated on E-waste managemen

# 7.1.6 Rain water harvesting structures and utilization in the campus

#### **Response:**

- In most urban areas, population is increasing rapidly and the issue of supplying adequate water to meet societal needs and to ensure equity in access to water is one of the most urgent and significant challenges faced by decision makers.
- With respect to the physical alternatives to fulfil sustainable management of freshwater, there are two solutions: finding alternate or additional water resources using conventional centralised approaches; or better utilising the limited amount of water resources available in a more efficient way.
- To date, much attention has been given to the first option and only limited attention has been given to optimising water management systems.
- Among the various alternative technologies to augment freshwater resources, rainwater harvesting and utilisation is a decentralised, environmentally sound solution, which can avoid many environmental problems often caused in conventional large-scale projects using centralised approaches

File Description	Document
Any additional information	View Document

#### 7.1.7 Green Practices

Students, staff using

- a) Bicycles
- b) Public Transport
- c) Pedestrian friendly roads
- Plastic-free campus
- Paperless office
- Green landscaping with trees and plants

# **Response:**

- 1. **Bicycles** Since the college is about 20 to 25km away from the city, many cannot afford coming by bicycle. However, those who come from nearby villages, do use bicycles to commute.
- 1. **Public Transport** Public transport is made available by the college in collaboration with Telangana State Road Transport corporation which provides exclusive buses for the students for commuting from the city to college and back in the evening. Apart from that around 50 college buses also ply to the city. Some students commute using regular RTC buses or sharing autos. The college provides free bus services from the college to the nearby bus stop for such students, as the bus stop is about 3.0 km away from the college.
- 1. **Pedestrian Friendly Roads** Pedestrian Pathways are provided on either side of the roads in the campus.
- 1. **Plastic free campus** The college has been trying its best in promoting a plastic free environment. It has been working towards reducing its plastic footprint. The following are some of the measures taken up by the campus administrators for reducing the plastic pollution on campus:
- The college realized that one of the biggest contributors to college's plastic footprint was the plastic wrappers used in packaging in the canteen. So, the canteen authorities were asked to ban the use of plastics. Instead of sending all the food parcels to the staff rooms in polythene covers (which was the earlier practice), it has made it mandatory for the staff to send their own utensils for taking food parcels. The tea and coffee is also served in paper cups. This has resulted in a tremendous reduction of use of plastics. Even other food items are served in paper or steel items, rather than that of plastics, thus encouraging use of non-plastic alternatives.
- On occasions like World Earth Day, the college conducts awareness sessions for students and faculty on how to reduce the use of single-use plastics.
- Paperless office The College information system is provided through SAP software and there is no need to send the communications using paper. Application forms for leaves can be fed into the system from any place in Telangana or outside. Even the submission of marks, attendance etc., are passed on to SAP through online, thus making all communication paperless and thereby safeguarding the environment.
- Green landscaping with trees and plants Trees are planted every year based on the free space available and also replacing some of the trees which are infected by some pests. Large part of free space available in the campus are provided with landscape. Our college has one NCC unit and two units of NSS. Students who formed NGOs in the name of Bachpan Prayas, Street Cause etc., conduct tree plantation in the neighbouring villages including the space available along the Ring

road. The students are highly sensitized in this regard.

File Description	Document
Any additional information	View Document
Link for Additional Information	<u>View Document</u>

# 7.1.8 Average percentage expenditure on green initiatives and waste management excluding salary component during the last five years

Response: 2.27

7.1.8.1 Total expenditure on green initiatives and waste management excluding salary component yearwise during the last five years(INR in Lakhs)

2018-19	2017-18	2016-17	2015-16	2014-15
3.02	2.01	1.26	329	0.47

File Description	Document
Details of expenditure on green initiatives and waste management during the last five years	View Document

# 7.1.9 Differently abled (Divyangjan) Friendliness Resources available in the institution:

- 1. Physical facilities
- 2. Provision for lift
- 3. Ramp / Rails
- 4. Braille Software/facilities
- **5. Rest Rooms**
- 6. Scribes for examination
- 7. Special skill development for differently abled students
- 8. Any other similar facility (Specify)
- A. 7 and more of the above
- B. At least 6 of the above
- C. At least 4 of the above
- D. At least 2 of the above

<b>Response:</b> A. 7 and more of the above		
File Description	Document	
Resources available in the institution for Divyangjan	View Document	
Any additional information	<u>View Document</u>	
link to photos and videos of facilities for Divyangjan	View Document	

# 7.1.10 Number of Specific initiatives to address locational advantages and disadvantages during the last five years

# Response: 21

7.1.10.1 Number of specific initiatives to address locational advantages and disadvantages year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
6	6	3	0	6

File Description	Document
Number of Specific initiatives to address locational advantages and disadvantages	View Document

# 7.1.11 Number of initiatives taken to engage with and contribute to local community during the last five years (Not addressed elsewhere)

# Response: 28

# 7.1.11.1 Number of initiatives taken to engage with and contribute to local community year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
6	6	5	5	6

File Description	Document	
Any additional information	View Document	

## 7.1.12

Code of conduct handbook exists for students, teachers, governing body, administration including Vice Chancellor / Director / Principal /Officials and support staff

**Response:** Yes

File Description	Document
Any additional information	View Document
URL to Handbook on code of conduct for students and teachers, manuals and brochures on human values and professional ethics	View Document

#### 7.1.13 Display of core values in the institution and on its website

Response: Yes

File Description	Document
Any additional information	View Document
Provide URL of website that displays core values	View Document

# 7.1.14 The institution plans and organizes appropriate activities to increase consciousness about national identities and symbols; Fundamental Duties and Rights of Indian citizens and other constitutional obligations

Response: Yes

File Description	Document
Details of activities organized to increase consciousness about national identities and symbols	View Document
Any additional information	View Document

#### 7.1.15 The institution offers a course on Human Values and professional ethics

Response: Yes

File Description	Document
Any additional information	View Document
Provide link to Courses on Human Values and professional ethics on Institutional website	View Document

# 7.1.16 The institution functioning is as per professional code of prescribed / suggested by statutory bodies / regulatory authorities for different professions

**Response:** Yes

File Description	Document
Any additional information	View Document
Provide URL of supporting documents to prove institution functions as per professional code	View Document

7.1.17 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties during the last five years

Response: 129

7.1.17.1 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
27	28	28	25	21

File Description	Document
List of activities conducted for promotion of universal values	View Document
Any additional information	View Document

# 7.1.18 Institution organizes national festivals and birth / death anniversaries of the great Indian personalities

#### **Response:**

#### **Organising National Festivals**

Institution organises every year National festivals like Independence Day on 15th August and also Republic Day on 26th January. The faculty members, staff and students assemble every year in large numbers for the national celebrations conducted on campus.

Flag hoisting ceremony is conducted. A number of senior teachers take part in paying homage to our departed leaders such as the father of the nation Mahatma Gandhi Ji, first prime minister of India Pandit Jawaharlal Nehru and many other freedom fighters.

The assembly is addressed by the Executive Director, Principal, Deans / Directors, Teachers, Non teaching staff and students, paying tributes to the great leaders who have sacrificed their lives for achieving freedom of our country.

The phenomenal achievements during the years of Independence are detailed in the speeches, thus arousing patriotic spirit in everyone. National Anthem and National Song are recited in the meetings. The NCC cadets of the college stage a March on these days. Their parade and the soulful renderings by the choir brightens the occasion.

#### Birth / Death Anniversaries of Great Indian Personalities

- 1. Gandhi Jayanthi: Oct 2
- 2. Babu Jagjivan Ram's Birthday
- 3. Martyr's Day (Jan 30) The students and faculty pray for two minutes remembering Gandhiji and prays for his soul to rest in peace.
- 4. National Youth Day (Jan 12) Swami Vivekananda's Birth Anniversary
- 5. National Science day (Feb 28) Commemorating the discovery of Raman Effect
- 6. National Engineer's day(Sep 15): Celebrated as tribute to the greatest Indian engineer and Bharat Ratna, Sir Moksha Gundam Vishweshvaraya

All the above national days of importance are commemorated in the college by involving the students in various literary, cultural and science activities.

## **State Festival**

The state festival, Bathukamma, is also celebrated on campus. The students, faculty and staff get dressed for the occasion and play Bathukamma, thus promoting the state festival.

Ours being a secular country, the government declares General holidays for festivals of various religions. So that the faculty, staff and students who belong to different religions will have time to conduct all the rituals and practices, commemorating the significance of the festivals concerned. This helps in planting the seeds of secularism in everyone's mind

# 7.1.19 The institution maintains complete transparency in its financial, academic, administrative and auxiliary functions

#### **Response:**

The college maintains complete transparency in the financial, academic, administrative and auxiliary functions of the college.

#### **Financial Transparency**

All students are aware of the tuition fee and the miscellaneous fee payable by them based on the recommendations of Admissions and Fee Regulatory Authority nominated by Government of Telangana. To boost Campus placements, in addition to the training given as a part of the curriculum, the college also organises CRT training in collaboration with reputed consultancies. The college bears 50% of the fee charged by these agencies, while the other 50% is borne by the students who attend the training. Transparency is maintained regarding the fee details in this regard.

The faculty and staff are given the account numbers for the benefits like EPF, ESI by which they can track the payment made by the college and these organizations.

The faculty and non-teaching staff working in different departments of the college are aware of the service rules and the emoluments and the increments that are to be given for each category of faculty i.e. Asst Professor, Associate Professor and Professors and that of Non-teaching staff. With the help of SAP, all HR activities including payment of salaries, deductions if any and pay slips are given to the employees for their information.

The heads of the departments / sections hold internal discussions regarding estimated expenditure towards recurring and non-recurring items. The College Academic Committee scrutinizes the proposals, and the Principal submits the same for the approval of the Finance Committee constituted as per the guide lines of UGC for Autonomous Colleges. The minutes of the Finance Committee are then submitted to Governing Body of the college, for their approval. The minutes of Governing Body are sent to the college for dissemination of the information regarding budget provisions as approved by the Governing Body to various departments / sections as well as Administration and other wings of the college. Thus, every wing of the college knows about the budget provided for various items of expenditure and they must plan accordingly for the upcoming semester.

### **Academic Transparency**

The academic regulations as approved by the Boards of Studies, Joint Board of Studies and Academic Council are informed to every student through their course files. The minimum requirements regarding credits and attendance for promotion are informed to the students in advance.

Every faculty member is given details of his/her work load by the department concerned and their acknowledgements are taken. The alternate arrangements made by the faculty in his/her absence are also made known to the Assoc. Heads, HoDs, and the admin in charges to ensure effective conducting of classes.

The students get to see their sessional answer scripts, both theory and practical and verify if the evaluation was done in a standard manner. Only then the marks are submitted to the examination branch.

# Transparency of Administrative and auxiliary functions

A clear chart of the responsibilities and functions of all the levels of authority is given in a schematic form and is posted in college website

#### 7.2 Best Practices

#### 7.2.1 Describe at least two institutional best practices (as per NAAC Format)

#### **Response:**

#### **Best Practice – 1**

#### 1. Title of the best practice

Developing scientific temper among faculty and students by encouraging conduct of research by various initiatives.

#### 2. Objective

- 1. Today effective teaching as well as research is important for the student to respond to the challenges in global scenario.
- 2. It is necessary that the teaching must be application oriented and thereby expertise in research is to be achieved to make the teaching interesting and useful to the students.
- 3.. Knowledge in emerging technologies for solving problems that arise in the changing industrial scenario i.e onset of 4.0.
- 4. Fostering interdisciplinary research with collaboration of different branches of engineering and science

faculty.

5. Publication of papers and participation in various competitions which enable the students to hone their ideas and innovations.

#### 3. The Context

- 1.SNSIT believes that professional mindset, competency in academics and interest in research are required in the faculty for success of technical education system in India.
- 2.The faculty must have interest in learning new emerging technology areas and study the trends of industry so that the curriculum can be devised accordingly. There is need for collaboration between industries and institutions.
- 3. There must be formation of research groups which continuously engage in identifying and discussing new technology areas so that they can propose revision of curriculum as well as the teaching methodology which are suitable in the changing scenario.
- 4. The research groups of teachers and students should be formed for conduct of research which will be useful for industry.
- 5.The industry must come forward to support the academia for the common good. Joint research programs are to be taken up which is the need of the hour.

#### 4. The Practice

- An ecosystem is set up in association with the Research groups of various departments to foster the spirit of creativity and research. The Institution provides funding for any infrastructure requirements for conduct of research.
- The college maintains hardware library in each of the departments and the components required are drawn or procured from the market for developing desired product for realizing their Proof of Concept.
- A College Research Committee has been constituted to evolve research policies and to disseminate Code of Ethics and Professional Conduct to bring credibility and community trust.
- Seed money for Internal research to do experimentation in the research work is provided by the college based on the recommendations of a research panel comprising Dean of Research and Development, HoD concerned and the Coordinators of the department for research. With the allocated research fund, any equipment or software/hardware can be procured as per rules in force. Thus, a platform is established to promote research activity in the faculty and students and enable them to submit applications for research grant by funding agencies.
- 96 faculty members are pursuing PhD and are given special leaves as well as financial assistance in purchasing some equipment and software for conduct of research and reimbursement of expenses towards presentation of papers in conferences and also for publications in recognized journals.
- College is continuously trying to get into MoUs with reputed Institutions which can collaborate in conduct of joint research.

The institute has been making strategic alliances with reputed R & D organizations such as DRDO units i.e Research Center Imarat, Center for advanced Systems, Defense Research and

Development organization. Besides this, the alliance and consultancy activity is in progress with

Ministry of Micro, Small and Medium Enterprises (MSME), , ,HAL, Neucleonix Systems, PJTS Agricultural University, Hyderabad and Central University, Hyderabad, Wadhwani Foundation USA, etc.

- The college has formed Department level research groups for counseling and providing guidance for proper adoption of research methodology for junior faculty, PG students and quick learners of UG program.
- Research based performance is evaluated and is taking into consideration for giving best teacher award for teachers. At present a weightage of 10 % is given which is proposed to be increased to 30% in the assessment process. The teachers are also given awards for publication in indexed journals.

Equip faculty on emerging technologies by organizing and supporting participation in FDPs and Workshops.

#### 5. Evidence of Success

- Sponsored projects worth Rs 2.01 Crore were awarded to SNIST faculty from various organizations of DRDO such as RCI, CAS, DRDL. Projects are also received from AICTE, UGC, DBT, MHRD and TEQIP- III. Some projects are received from Private Undertakings namely Neucleonix Systems, NextGenIT, Smartbridge, Apollo Computing, etc. The offer letters given by the above organizations are available in our college Website
- 1350 papers were published by our faculty and students in indexed journals, out of which 750 papers are published jointly by the faculty and students. Research awards are given to all the contributors. List of papers published and list of awards given are available in our college website http://sreenidhi.edu.in/pagecontents.php?catid=7&scatid=8
- 161 books /Book Chapters/Proceedings of various conferences are contributed by our faculty in the last five years. http://sreenidhi.edu.in/pagecontents.php?catid=7&scatid=8
- Under TEQIP III for which JNTUH is a nodal agency, for funding of R & D projects, 11 projects has been awarded with a total grant of Rs 31.45 Lakhs. *The sanction letters issued by TEQIP III & JNTUH, Hyderabad are available in our college website:*
- College is recognized as a Scientific and Industrial Research Organization by DSIR. *The letters be uploaded to our Website*

JNTUH has recognized our college as a Research Center. The letters issued by JNTUH, Hyderabad are available in our college Website:

#### 6. Problems encountered and Resources required

- Maintaining balance between research and academic activity for the faculty
- 1. The college has been making efforts to give remission in the work load to the faculty who are engaged in Research and Consultancy. This is being taken care of by concerned Heads of the depts.
- 2. Formation of Research Groups to work in the disruptive technologies and inter disciplinary areas

The new areas mentioned above are of recent origin and AICTE has advised all the Engineering colleges to start integrating the same in the curriculum. The research groups are identified for initiating research in all the new disruptive technologies and also in inter disciplinary areas.

All the faculty are empowered to understand, assimilate the new technologies, so that they can teach the students and also initiate research by deputing them to attend FDPs and Seminars and Conferences conducted in these areas. Any help required in this regard for purchase of software will be met by the college.

#### 7. Notes (Optional)

In the present day situation the responsibility of a teacher is not only to teach the subject but also to give the applications along with current research using the concepts of the subject.

The teacher himself must study the various aspects of the applications and the type of research work being carried out which is relevant to the subject. In this regard there is a need for changing the curriculum as and when the industry requirements are known so that the graduates will be employable in the industry. There should be a study group in this regard with faculty from various departments so that advance action can be taken to integrate various developments in different subject areas for eventually revising the syllabus.

#### Best practice – 2

#### 1. Title of the practice

Initiatives taken by the Institution for student Development in all aspects including shaping as Entrepreneurs

#### 2. Objectives of the practice:

The college aims to produce intellectually strong, emotionally stable, socially responsible and spiritually enlightened graduates to ensure wholesome education for balanced development of the student. The college owns responsibility of making the student employable.

- 1.To Design a curriculum to meet with faster technological developments which promotes student centric learning and also to enhance their employability.
- 2. To ensure effective teaching learning process.
- 3. To make the students work in groups to improve their emotional quotient.
- 4. To inculcate ethical values and societal awareness through various student clubs.

To arrange lectures on spiritual values.

#### 3. The Context

Industry at present is affected by the onset of destructive technologies. They are forced to change their strategies and accordingly adjust to the changing scenarios in the market.

Accordingly, the curriculum has to be revised to give opportunities to learn on their own to become lifelong learners and to be employable.

- 1. Due to technological developments, new methods of effective teaching have evolved which are to be used by the faculty for more effective teaching learning process.
- 2. Curriculum must be devised such that the students are to work in teams for achieving a desired goal. This naturally ensures understanding of team and leadership skills.
- 3. It has become essential to introduce subjects in the curriculum in ethics, values and gender sensitization so that the industry can run effectively.

Exposure to the lectures given by spiritually enlightened teachers is necessary to develop proper attitudes in the students.

#### **4.**The Practice :

#### 1. Curriculum revisions due to technological changes and to develop team skills in students.

With the onset of new technologies, it is necessary to revise the syllabus at least once in a year so that the students can keep pace with the changing industrial scenario. Faculty members are empowered to teach the new subjects effectively.

The curriculum gives a number of opportunities to learn on their own so that they can develop into lifelong learners. With these initiatives they become more employable.

#### 2. New methods of teaching learning process

Audio visual aids are being used extensively so that the student can see what is being taught and listen to the explanations and hence the perception of the subject matter improves. The students are made to take the notes so that the retention in the mind improves tenfold.

In our college, all classrooms are converted to e-classrooms by providing internet and campus wide networking. With these all the learning materials from NPTEL, MIT open courseware, Video lessons prepared by our faculty in our studios are made available.

#### 3. Imbibing team skills and development of positive attitude

The curriculum as stated above has a number of subjects where the students are to work in teams to complete various tasks given to them.

This develops team skills in the students for achieving a goal set for the team and in the process the team skills as well as positive attitude are imbibed in them. With these improvements in the curriculum we make the students more employable.

#### 1.Imbibing ethical values and societal responsibilities

Subject on Ethics and Values is introduced in our curriculum for guiding the students on right path in our Autonomous mode.

There are number of clubs which are engaged in social service activities in Government Primary Schools, Orphanages and Old age homes for helping them in all possible ways. Thus, students are realizing their responsibilities towards the society.

#### 1. Arranging of lectures on spiritual values

Some adolescent students joining in higher education system are getting diverted due to western and other influences. Unfortunately the parents of such children do not understand this situation and only wakeup when their wards are either detained or failed in the exams. The students must be exposed to lectures on Indian Culture and Values. College is taking the help of spiritually enlightened personalities to guide students to be on the right path.

#### 1. Evidence of Success

- Due to improved teaching learning process, the results of students in various examinations have improved.
- With the encouragement of the college our students participated in various National and International competitions and they came back with accolades and awards.
- By forming a number of technical associations and clubs and encouraging the students to do research, we could make them publish 750 papers in journals which are indexed by UGC, Scopus, WoS etc in the last five years.
- In the last three years 16 innovative ideas were submitted to Indian Patent office and out of them 2 are registered, 10 patents are published and 4 patents are in different stages of scrutiny by IPO. The funds that are required to be paid to Patent Attorney, filing the patent application and publication & examination fee are provided by the college.
- Due to various efforts made including the revision of the curriculum for introducing the courses such as Logical reasoning, quantitative aptitude, Communication skills in writing, as well as oral communications and soft skills the employability has improved and hence the percentage of

students placed has also increased. The average pay offered to the students has also increased.

### 1. Problems Encountered and Resources required

The Need for exposure of students to the Industry and opportunities utilized by the college in this regard

- 1. Institution arranged opportunities to the students to have exposure to the relevant industry by arranging internships at the end of II and III year. The students have opportunities to do final year project in the industry in the entire second semester of final year. Thus, the students are exposed to industrial environment on three occasions in their four year degree program.
- 2. The college established an incubation centre with facilities provided for ten budding entrepreneurs. They can engage in the development of a product or a service. Our students have won many medals in India and abroad in the innovation competitions.
- 3. The Institute is providing seed money to support students to realize the product. Their applications are sent to MSME for financial assistance for accelerating the development into an enterprise.

#### **Notes (Optional)**

- 1. Institution believes that faculty is the heart of the institution. Due to their initiatives highest percentage of students have passed in University examinations.
- 2. The college teachers have taken initiatives to conduct faculty development programs for the benefit of faculty of our college and sister colleges.
- 3. Due to the initiative of teachers all the courses run in our college were accredited by NBA at a very young age 5 ½ years.
- 4. At the age of seven years, the college was chosen by World Bank under TEQIP I and later in TEOIP II.
- 5. The college is recognized as a Research Center by JNTUH and DSIR, Govt. of India.
- 6. The college encourages the faculty and students to do research and publish papers as detailed in the item 5 above.

We believe that, these best practices of Sreenidhi can pave way for other institutions to follow us and adopt the same for their growth.

File Description	Document
Any additional information	<u>View Document</u>

#### 7.3 Institutional Distinctiveness

7.3.1 Describe/Explain the performance of the institution in one area distinctive to its vision, priority and thrust

**Response:** 

7.3.1

One area distinctive to its vision, priority and thrust

Igniting the spirit of Innovation and Entrepreneurship

Vision, Priority and Thrust of the Institution

Our college is driven by the Vision of focussing on producing professionally competent and socially sensitive engineers. The institute encourages the students and faculty to be creative thinkers and produce innovative products.

Three Special Projects that students are associated with:

- **a. Artificial Heart Project** in association with Dr.P.S Reddy, Professor of Cardiology, University of Pittsburg, USA and three engineering colleges namely, CBIT, Hyderabad, BITS Pilani, Hyderabad and SNIST.
- b. reenidhi Satellite Project
- c. Autonomous Car Project

Detailed information is uploaded in our college website

- i. Initiatives to ignite spirit of Innovation
- ii. Establishment of Sreenidhi Hub and facilities provided

Sreenidhi Hub is established as the Innovation and Incubation centre by SNIST to nurture the creative spirit and enhance the risk taking capabilities and leadership qualities in our students.

#### iii.SNIST - MHRD Institute Innovation Council

SNIST has an active Institute Innovation Council under the Ministry of MHRD's Innovation Cell where in students and faculty participate and organize events such as Leadership Talks Series, Ideation Sessions, Prototype Competition and Smart India Hackathon. Under this initiative of MHRD, the institute has been awarded four star rating (against the maximum of 5 star rating) for its achievements and active participation for the academic year 2018-19.

## SNIST as J- Lab under J-HUB, JNTUH

SNIST has been organizing technical hackathons at regional and national levels and and within the campus where students work on problem statements presented by MSMEs and reputed IT organizations.

#### **Strategic Alliances Forged for promoting Innovation**

To forge strategic alliance the institute is tied up with:

- 1. The Indus Entrepreneurs (TIE),
- 2. Telangana-Hub,
- 3. Institute Innovation Council under MHRD,
- 4. JNTUH, Hub (J-Hub).

#### **Achievements and Accolades**

#### **Hackathons Awards**

- **SNIST students** topped the list with total six awards three student innovators and three idea prototype awards.
- J-HUB Hackathon
- ∘ Total awards received 06
- Student innovators award 03
- Idea Prototype awards 03

#### **International Innovation Awards**

- International Innovation Fair 2017, Vizag Five Silver Medal Award under different categories
- International Invention and Innovation (INTARG) Poland, June, 2019 Two Gold, Two Silver,
   One Bronze
- Bangkok International Intellectual Property, Invention, Innovation & Technology Exposition organized by National Research Council of Thailand 2 Silver and 2 Gold medals
- Indonesian Invention and Innovation Promotion, February, 2019 Special Innovation Award.
- International Innovation Fair, Hyderabad, India 2019 One Gold, Three Silver, Two Bronze.

#### **National Innovation Awards**

- The Indus Entrepreneurs (TiE), Hyderabad Award of Rs. 1.0 Lakh for Best Innovation Idea.
- Rural Innovators Start Up Conclave 2019 organized by NIRD & Panchayat Raj, Ministry of Rural Development Government of India.
- Team Aquart, won first prize for their product Smart Tap Indicator.
- Team Pixhawk, won Best Innovator Award for the Idea of Precision agriculture using Drone
- MSME Student Grant 2019 Mumbai 28-29th Oct 2019, CMO, Mumbai Special Innovation Achievement award
- o AICTE Chhatra Vishwakarma awards 2019 2 out of 5 teams were selected in the regional round

for the phase – II presentation.

• AICTE Proof of Concept Competition 2019 - two prototypes from SNIST were selected at national level.

# **Efforts made for promotion of Entrepreneurship:**

# Telangana Academy of Skills and Knowledge (TASK) in alliance with Indian School of Business (ISB)

They offer Technology Entrepreneurship Program (TEP) to engineering students. Our college is recognized as the best participating institution. Our college has integrated the subjects offered by ISB for TEP as elective subject.

#### Wadhwani Foundation

Our college is one of the two institutions chosen by the foundation among 470 institutions under JNTUH. The curriculum proposed by them is being offered as one of the open elective series and our faculty were trained by them to handle the curriculum.

#### Strategic Alliances Forged for promoting Entrepreneurship

Strategic Alliances were forged with:

- 1. Wadhwani Foundation USA,
- 2.ISB,
- 3. The Indus Entrepreneurs (TIE),
- 4.CITD,

#### **Awards and Accolades**

#### **Development of Drone**

The proto type of Drone demonstrated, detecting the pests in a crop. It's valued about Rs. 5.0 Lakhsand some agriculturists with big land holdings are prepared to buy. Even small land owners can make use of it by paying for the services acre-wise.

This project has earned lakhs of rupees at various national competitions. Our college is planning to register as a company with this project and is gearing up for sale across India.

**Sieger Technologies,** a startup company, by a SNIST alumni, with a turnover of 5 crores, is a manufacture of Lithium Ion Batteries for electric vehicles. Their present turnover is Rs 5.0 crores.

**TCT Holidays and Technologies Private Limited** is a startup company, with 16 employees, situated at Mahesh nagar, Hyderabad, belonging to Mr. Nagaraju Kandukuri, a SNIST Alumni. The company develops software for travel and holidays to the customers.

Mr. Nagaraju Kandukuri also started another software development company, Tiera Techno Private

#### technologies with 42 employees situated at Madhapur, Hyderabad, and head quarters in Malaysia.

#### Support given to Faculty and Students for submission of applications for IPR (Patents)

Institution supports patent activity in:

- 1. Scrutiny of the patent application by a Patent Attorney
- 2. Submission of application to Indian Patent Office
- 3. Submission of complete specification of the patent along with necessary publication fee and examination fee.
- 4. Examination of objections received if any and personal interview if required for which the fee is already paid at the stage 3
- 5. Granting of patent and permanent registration.

All the expenses involved are paid by the college and so far 37 applications were submitted to the Patent office. The details of the patents can be found in :

http://sreenidhi.edu.in/pagecontents.php?catid=7&scatid=293

### **Concluding Remarks**

Our management is progressive in nature and believes in promoting innovation and entrepreneurship along with effective teaching. we are happy about our achievements so far.

File Description	Document
Any additional information	<u>View Document</u>

# 5. CONCLUSION

#### **Additional Information:**

#### Strategies for future development of the Institution

The technical education system is undergoing changes on par with the changes taking place in the industry. Today we are witnessing the fourth Industrial Revolution which envisages the factories of future with minimal human involvement, with the advent of enormous computing power.

### Strategies for development of future technological institutions

For future development of technical education in institutions including ours, we need to precisely predict the future stimulus for a change of technical education system.

In the past, advent of new technologies had impelled the institutions to revise the curriculum and modernize the laboratories. Technical training institutions were established for training the teachers to teach effectively. The fresh engineering graduates, who were employed as graduate engineer trainees, underwent induction training in the industry.

Today, the most important demand affecting the technical institutions is to produce manpower for the present industry 4.0. Studentsmust understand, assimilate and further improve the new technologies and systems. Besides this, students should be made aware of the new global feature of the industry. Based on the accuracy and relative cost, industries now design in a country, manufacture systems in another country and finally everything is assembled together in some other country. The education system, keeping this global scenario in mind, must upskill the students in their written and oral communication, so that they can engage in effective negotiation with customers and suppliers all around the world.

In this situation the technical institutions must work closely with the industrial personnel and develop the curriculum for the engineering profession so that the graduates can transit fromeducation towork, smoothly without many hiccups.

#### The practice at Sreenidhi:

Our college has revised the curriculum based on our study of skills in demand in the industry, andthe future trends communicated by organizations like NASSCOM, FICCI, CII etc.

#### **Future Strategy:**

In future, we need to build a strong collaboration with the industry by getting into fruitful MoUs with different types of industries. Accordingly, the faculty would be made competent through industrial trainings/internships, so that they can make the students future ready.

# **Concluding Remarks:**

The aim of our institution is to produce graduates who are intellectually strong with a human face. A flexible

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and dynamic curriculum must be able to provide manpower to the industry 4.0 through feedback received from the stakeholders.

The curriculum and its effective teaching must be able to make the students into lifelong learners. The strategies for catering to the needs of slow and fast learners must be adopted. The faculty must be empowered for effective teaching from time to time to meet the demands in the industry and to give leads to the students in research and innovation. The evaluation process must undergo reforms to meet the objectives of outcome based education.

The institute has a well defined research policy and the faculty as well as students can take advantage of, in their pursuits for excellence. The faculty have published 1542 papers in indexed journals our of which 700 of them are through guidance of the students. An innovation and incubation center is established and the students are ignited to innovate and they bagged a number of awards national and international exhibitions. 18 applications were submitted by students for patents out of which 3 are already registered. Necessary finances are provided by the college.

Necessary resources are provided and campus wide networking is in place with Wi-Fi facility and 350 MBPS of net connectivity. All classrooms are e-classrooms and campus LMS, NPTEL and other e-resources are used for effective instruction.

The strategy development and deployment activity is well in place and IQAC has been providing necessary guidance to all departments. A Civil Services Academy is established with 300 students. A number of social service activities are conducted.

A Solar power plant is installed to meet 90 % of power requirements of the campus. LED bulbs are installed in most places in the campus. Green initiatives such as rain water harvesting, plantation of trees etc., are in place. The code of conduct and core values are well defined to the employees. The best practices which made our college distinctive are well thought of.