SELF STUDY REPORT

FOR

2nd CYCLE OF ACCREDITATION

SWARNANDHRA COLLEGE OF ENGINEERING & TECHNOLOGY

SEETHARAMAPURAM, WEST GODAVARI DISTRICT
534280
www.swarnandhra.ac.in

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

(Draft)

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Swarnandhra College of Engineering and Technology (SCET) was established in the year 2001 by The Vasista Educational Society with a vision to empower the students to become technologically sound, innovative and emotionally matured to face the challenges of the globalized world economy.

SCET offers UG B.Tech. programmes in Civil Engineering, Mechanical Engineering, Electrical and Electronics Engineering, Computer Science and Engineering, Electronics and Communication Engineering and Information Technology and PG M.Tech programmes in CAD/CAM, Power Electronics, VLSISD, Computer Science & Engineering, Nanotechnology, and Structural Engineering along with Master of Business Administration and Master of Computer Applications.

B. Tech-ECE, CSE, IT and EEE programs were accredited by NBA in 2008, B.Tech-ME was accredited in 2013 and B.Tech-ECE, CSE, EEE programs were re-accredited in 2013. B.Tech-ECE was accredited the third time in 2017. The institution is accredited by NAAC at 'A' Grade with CGPA 3.32/4.00 in 2013 and got UGC autonomy in 2014.

The institution is always ahead in the pursuit of excellence. The Management of the institution believes in adopting the changes from time to time by introducing the latest advanced technologies in the curriculum by providing all necessary infrastructural and instructional facilities. The institution adopted Outcome Based Education (OBE) and Choice Based Credit System (CBCS) for academic enhancement. It has well qualified and experienced faculty involved in innovative, quality pedagogy and R & D activities. Projects worth of 1,05,41,000/-were sponsored to the Institution by IACQER, DST, UGC, DAE, DRDO, and AICTE. Presently, the institution has three research projects worth Rs. 25 lakhs sponsored by DST, DRDO, and UGC. The institution has three recognized research centers, among which the Mechanical Engineering department is recognized by JNTUK, Kakinada.

Vision

To produce global competent, ethical and dynamic professionals by creating Centre of Excellence in Technical Education for societal empowerment

Mission

- **To provide quality education with knowledge and skills for rural and urban students.**
- **To collaborate the industries with academia for empowering the students to meet global standards.**
- **To induce highly ethical entrepreneurship in young minds with good leadership quality for the society.**
- **To enhance the institution in Research and Development by human intellectual capability.**

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- The Institution is accredited by NAAC with 'A' Grade of CGPA 3.32/4.00 in 2013.
- Acquired UGC autonomy in 2014.
- Recognized Under Section 2(f) and 12(B) of UGC Act 1956
- One of the best engineering colleges located in the rural area to serve society.
- Visionary, learned, and proactive Management to cater to the needs and aspirations of all stakeholders.
- Involvement of all the stakeholders in the administration
- The institute has state-of-the-art laboratories, workshops, well-stocked library with digital facilities and internet with Wi-Fi connectivity.

- The institute is recognized as a training center by CISCO Network Academy for academic enhancement activities and has functional MoUs with Cyient, APSSDC, IBM, Microsoft, Oracle, ICT academy, Falcon Systems, CPLR, AXIS, Codetantra, Conduira, etc.
- Effective teaching-learning process with the use of ICT tools and student-centric methods.
- The institution is permanently affiliated to JNTUK Kakinada for a period of three years from the academic year 2017-18.
- B.Tech-ECE, CSE, IT and EEE programs were accredited by NBA in 2008. B.Tech-ECE, CSE, EEE programs were accredited second time by NBA in 2013. B.Tech-Mech was accredited by NBA in 2013. B. Tech-ECE was accredited third time by NBA in 2017.
- Enriched curriculum with Outcome-Based Education (OBE) and Choice Based Credit System (CBCS).
- Good placement record

Institutional Weakness

- Geographically located in the remote and coastal area.
- Limited industry – institution interaction and limited association with R&D organizations.
- Lack of communication skills in English among the students as they hail from the rural background.
- Getting the Ph. D holders from premier institutions are difficult as the Institution is located in a remote area.
- Low consultancy output

Institutional Opportunity

- Inculcating the culture of enterprenuership to rural youth through technology.
- To elicit students' skills through training facilities with functional MoUs and collaborations with external bodies.

- Involving more faculty members in consultancy through incentives that increase the revenue of the

- Developing leadership qualities among the students.
- Flexibility in curriculum design and development.
- Societal Projects and Environment Pollution.

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Institutional Challenge

- Retaining the experienced faculty with Ph. D qualification.
- Transforming rural students to evolve as dynamic professionals.
- Growing competition of nearby private universities.
- Sustaining competitive capabilities with the help of reputed organizations and universities.
- Strengthening the industry-institute interaction.
- Promotion to join HEI in Higher education for MS/Ph. D

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

- The institution is committed to provide accessible, quality technical education to the students.
- It is essential to develop the employability and entrepreneurship skills of the students along with imparting technical education. In view of that, the curriculum of all the 13 programmes offered by the institute is revised in last five years in line with Outcome-Based Education (OBE).
- The institution designed and has implemented new regulations and curriculum, following the Choice Based Credit System (CBCS) consists of 180 credits. It enriches the curriculum and helpful for the overall development of the students. As per the guidelines of UGC and AICTE, the institution has been offering CBCS since 2016.
- The objective of the new curriculum is to provide a challenging and supportive environment for student learning. Around 60% of courses in the college are focused on the development of the employability skills of the students.
- In the latest revision of the syllabus, 11% of new courses are introduced based on the needs of the industry.
- The institution also offers many value-added courses imparting transferrable life skills during the last five years.
- The institution promotes a safe, healthy, and sustainable environment where the students can flourish at the personal and community levels. To reach that, the institution has introduced courses like Professional Ethics and Intellectual Property Rights as mandatory for all UG programs.
- The institution has its own effective feedback mechanism to get the inputs from the stakeholders from time to time for review, design, and development of the curriculum and take necessary measures.

Teaching-learning and Evaluation

- The institution adopts the policy of imparting quality technical education to the students. Admissions in various programs under category A seats are made through common entrance examinations (EAMCET - UG B.Tech Program, ECET-UG B.Tech Three year program, ICET- PG -MBA & MCA, PGCET- PG-MTech) conducted by Andhra Pradesh State Council of Higher Education (APSCHE) and category B seats are filled as per the guidelines of the state government.
- Remedial and special classes are conducted for slow learners and coaching for various competitive examinations is conducted for advanced learners. The institution has the policy of recruiting well qualified and experienced faculty as per AICTE and UGC norms.
- The institution prepares and follows a well-planned academic calendar. The faculty members prepare lesson plans and course information sheets which are verified by the HoD and the Principal.

- The faculty members of the institution adopt student-centric methods such as experiential learning, participative learning, problem-solving methodologies, smart classes and ICT tools which are helpful to enhance the skills of students.
- Some of the faculty members in the institution received awards, recognition, and fellowships from government and recognized bodies. The Internal Quality Assurance Cell (IQAC) verifies the implementation of lesson plan with adherence to the academic calendar.
- Fair practices and transparency are maintained in conducting the examinations as well as in the evaluation process.
- The institution follows Outcome-Based Education (OBE). All the programs offered by the college have well defined COs, POs, and PSOs, The outcomes are assessed through direct and indirect methods.

Research, Innovations and Extension

- The institution has well-defined research, development and consultancy policy. Having a distinguished centre for higher learning, this institution encourages research in all areas and provides financial support as seed money to the faculty. One of the departments of this institution has been recognized as a research centre by the JNTUK, Kakinada. The established research centres have well equipped centralized facilities.
- Three funded projects, worth Rs. 105 lakhs has been sanctioned by UGC, AICTE, UGC-DAE, DST, DRDO, and IACQER for the research projects, and many of them have been successfully completed. Further, some research projects worth Rs.1 crore are in the pipeline with various funding agencies.
- The research activity is progressive and proactive with more than 311 publications in peer-reviewed and referred journals (SCOPUS/WOS).
- Twenty Six books and chapters were published.
- This institution has collaborations with various national and international institutes to access the fabrication and characterization facilities.
- The institution has well established IPR Cell for conducting various workshops on patent rights.
- The prime focus of this institution is committed to transfer empirical knowledge to applicable and reliable practices that replace individual brilliance with collective, collaborative and societal utility through extension activities (NSS).

Infrastructure and Learning Resources

- Swarnandhra College of Engineering and Technology has a strategy of creating a conducive environment for the overall development of the students. It possesses a well-maintained campus with the number of trees, greenish lawns, and blossoming flowers, which has a serene effect on the students.
- The infrastructural facilities like cozy classrooms (67), well equipped laboratories (87), e-class rooms (9), seminar halls (3), smart class rooms (5), computers (1056) connected in LAN etc, aids to impart knowledge in an appropriate manner to the students.
- The institution provides an internet facility with a capacity of 140 Mbps band width and also covered with Wi-Fi facility.
- The central library consists of 41312 volumes, 6306 titles and digital library with an exceptional collection of journals, magazines, and rare books along with DELNET facility.
- The institution provides an internet center to cater to the global and professional needs of the students.
- The campus is under CCTV surveillance. The institution provides the facilities and infrastructure for regular maintenance with a provision in the annual budget.

- The institution believes in the promotion of physical education for the well being of the student folk. It consists of gymnasium, outdoor and indoor courts to facilitate motor skills.
- The institution provides proper facilities for yoga. It also creates an opportunity for the students to exhibit their interest in cultural activities and fine arts by conducting co-curricular and extracurricularr activities.

Student Support and Progression

- The Government has been reimbursing fees and issuing scholarships to the eligible students of the institution.The institution also provides financial assistance to needy students.
- The institution puts special efforts to reduce its dropout rate and to increase its pass percentage.
- Personal enhancement and development schemes such as coaching classes for competitive examinations, career counseling, soft skill development, etc. are arranged to the students.
- The institution has a training and placement cell which helps to identify job opportunities and develop entrepreneurship skills of the students. On-campus selections are an essential mechanism to ensure student placement.
- The institution has a mechanism for timely redressal of student grievances and for the prevention of sexual (gender) harassment.
- Students play an active role in the academic and administrative bodies of the institution. The institution has an anti-ragging committee in which students are included as members to monitor students' interactions effectively.
- Students are encouraged to participate in sports and games at state, national, and international levels. Student participation in co-curricular and extra-curricular activities are encouraged.
- The alumni association contributes significantly to the development plans of the institution. Feedback from students is used for planning and developing support services.

Governance, Leadership and Management

- The institution has well-structured and good governance with accountability to the rules and regulations, which reflects an effective leadership in accordance with its vision and mission.
- The institution maintains transparency through its governance in the implementation of policies and practices.
- The institution has adopted the practice of decentralization, where the governance structure has a culture of involving faculty members at different levels of decision making and implementation.
- The institution works with the involvement of various stakeholders in different committees like institution advisory committee, IQAC, purchase committee and other administrative wings of the governance.
- The practice of decentralization leads to a productive management, where the deployment of information flows strategically and further leads to good governance.
- The institution provides financial support for the faculty members to attend seminars, conferences, workshops, research programs and also takes up effective welfare measures for its employees.
- The institution has adopted a fair and efficient financial management to accomplish the objectives of the organization. Internal and external financial audits take place regularly to monitor the budget allocation, income and expenditure, and optimum utilization of the financial resources.
- The institution has an Internal Quality Assurance Cell (IQAC) to administer quality management strategies in all the academic and administrative aspects.

Institutional Values and Best Practices

- The institution's focus is on green practices, renewable energy, waste management, and rainwater utilization. The aim is to develop an awareness of environmental issues and sustainability. The budget for green initiatives is allocated annually.
- The institution has a strong commitment to divyangans and provides facilities like ramps, washrooms, etc.
- The code of conduct is prescribed separately for staff and students and is exhibited in the institution website.
- Academic, administration, and financial informations are updated on the website.
- The institution celebrates national and international important days and conducts activities to promote patriotic values. The institution provides quality technical education to the rural students.
- The best practices of the institute are course coordinator-ship and employability skills enhancement program.
- Research in the area of nanotechnology is the distinctive feature of the institution.

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2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	SWARNANDHRA COLLEGE OF ENGINEERING & TECHNOLOGY
Address	SEETHARAMAPURAM, WEST GODAVARI DISTRICT
City	NARSAPUR
State	Andhra Pradesh
Pin	534280
Website	www.swarnandhra.ac.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	S SURESH KUMAR	08814-240588	9121214503	08814-240538	principal@swarnandhra.ac.in
Professor	VELURI SW AMINADHA M	08814-240599	9346610099	08814-240638	swamiji_v@yahoo.com

Status of the Institution	
Institution Status	Private and Self Financing

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

Recognized Minority institution	
If it is a recognized minroity institution	No

Establishment Details

Date of Establishment, Prior to the Grant of 'Autonomy'	01-01-2001
Date of grant of 'Autonomy' to the College by UGC	19-06-2014

University to which the college is affiliated

State	University name	Document
Andhra Pradesh	Jawaharlal Nehru Technological University,Kakinada	No File Found
Andhra Pradesh	Jawaharlal Nehru Technological University,Kakinada	View Document

Details of UGC recognition

Under Section	Date	View Document
2f of UGC	23-01-2012	View Document
12B of UGC	21-03-2013	View Document

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

Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	View Document	04-04-2018	12	
AICTE	View Document	04-04-2018	12	
AICTE	View Document	04-04-2018	12	
AICTE	View Document	04-04-2018	12	
AICTE	View Document	04-04-2018	12	
AICTE	View Document	04-04-2018	12	
AICTE	View Document	04-04-2018	12	
AICTE	View Document	04-04-2018	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?	Yes
If yes, name of the agency	APSHE
Date of recognition	01-08-2016

Location and Area of Campus				
Campus Type	**Address**	**Location***	**Campus Area in Acres**	**Built up Area in sq.mts.**
Main campus area	SEETHARAMAPURAM, WEST GODAVARI DISTRICT	Rural	25.06	38243

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BTech,Civil Engineering	48	Intermediate or its equivalent	English	60	28
UG	BTech,Electrical And Electronincs Engineering	48	Intermediate or its equivalent	English	120	6
UG	BTech,Mechanical Engineering	48	Intermediate or its equivalent	English	180	54
UG	BTech,Electronics And Communication Engineering	48	Intermediate or its equivalent	English	240	233
UG	BTech,Computer Science And Engineering	48	Intermediate or its equivalent	English	180	180
UG	BTech,Information Technology	48	Intermediate or its equivalent	English	60	57
PG	Mtech,Civil Engineering	24	B.Tech. Civil Engineering	English	18	14
PG	Mtech,Electrical And Electronincs Engineering	24	B.Tech. Electrical and Electronics Engineering	English	18	12
PG	Mtech,Mechanical Engineering	24	B.Tech. Mechanical Engineering	English	18	14
PG	Mtech,Electronics And Communicatio	24	B.Tech. Electronics and Commu	English	18	2

	n Engineering		nication Engineering or M.Sc. Electronics or Its equivalent			
PG	Mtech,Electronics And Communication Engineering	24	B.Tech. Electronics and Communication Engineering	English	18	8
PG	Mtech,Computer Science And Engineering	24	B.Tech. Computer Science Engineering	English	18	10
PG	MBA,Master Of Business Administration	24	Any Bachelors Degree	English	60	35
PG	MCA,Master Of Computer Applications	36	Any Bachelors Degree with mathematics background in either intermediate or graduation	English	60	0

Position Details of Faculty & Staff in the College

Teaching Faculty												
	Professor				**Associate Professor**				**Assistant Professor**			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0				0				0
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit				0				0				0
Sanctioned by the Management/Society or Other Authorized Bodies				22				37				179
Recruited	18	4	0	22	31	6	0	37	103	50	0	153
Yet to Recruit				0				0				26

Non-Teaching Staff				
	Male	**Female**	**Others**	**Total**
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				31
Recruited	28	3	0	31
Yet to Recruit				0

Technical Staff				
	Male	**Female**	**Others**	**Total**
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				49
Recruited	38	11	0	49
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	18	4	0	9	5	0	0	0	0	36
M.Phil.	0	0	0	2	0	0	2	0	0	4
PG	0	0	0	20	1	0	101	50	0	172

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

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

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

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	1843	10	0	0	1853
	Female	814	2	0	0	816
	Others	0	0	0	0	0
PG	Male	129	0	0	0	129
	Female	86	0	0	0	86
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years					
Programme		**Year 1**	**Year 2**	**Year 3**	**Year 4**
SC	Male	88	42	68	63
	Female	29	28	38	25
	Others	0	0	0	0
ST	Male	0	0	1	0
	Female	0	0	0	0
	Others	0	0	0	0
OBC	Male	258	168	226	181
	Female	58	68	77	70
	Others	0	0	0	0
General	Male	403	244	311	281
	Female	143	166	163	157
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		979	716	884	777

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Civil Engineering	[View Document](#)
Civil Engineering	[View Document](#)
Computer Science And Engineering	[View Document](#)
Computer Science And Engineering	[View Document](#)
Electrical And Electronincs Engineering	[View Document](#)
Electrical And Electronincs Engineering	[View Document](#)
Electronics And Communication Engineering	[View Document](#)
Electronics And Communication Engineering	[View Document](#)
Information Technology	[View Document](#)
Information Technology	[View Document](#)
Master Of Business Administration	[View Document](#)
Master Of Business Administration	[View Document](#)
Master Of Computer Applications	[View Document](#)
Master Of Computer Applications	[View Document](#)
Mechanical Engineering	[View Document](#)
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
13	13	13	13	13

File Description	Document
Institutional data in prescribed format	View Document

Number of departments offering academic programmes

Response: 8

3.2 Students

Number of students year-wise during last five years

2018-19	2017-18	2016-17	2015-16	2014-15
2780	2664	2462	2423	2520

File Description	Document
Institutional data in prescribed format	View Document

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

2018-19	2017-18	2016-17	2015-16	2014-15
780	530	624	683	862

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
2694	2552	2408	2351	2500

File Description	Document
Institutional data in prescribed format	[View Document](#)

Number of revaluation applications year-wise during last five years

2018-19	2017-18	2016-17	2015-16	2014-15
866	836	979	940	1259

3.3 Teachers

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

2018-19	2017-18	2016-17	2015-16	2014-15
155	269	434	244	519

File Description	Document
Institutional data in prescribed format	[View Document](#)

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

2018-19	2017-18	2016-17	2015-16	2014-15
211	199	191	186	184

File Description	Document
Institutional data in prescribed format	[View Document](#)

Number of sanctioned posts year-wise during last five years

2018-19	2017-18	2016-17	2015-16	2014-15
190	190	223	217	211

File Description	Document
Institutional data in prescribed format	[View Document](#)

3.4 Institution

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

2018-19	2017-18	2016-17	2015-16	2014-15
713	882	773	804	563

File Description	Document
Institutional data in prescribed format	View Document

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

2018-19	2017-18	2016-17	2015-16	2014-15
450	450	450	450	369

File Description	Document
Institutional data in prescribed format	View Document

Total number of classrooms and seminar halls

Response: 72

Total number of computers in the campus for academic purpose

Response: 1056

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

2018-19	2017-18	2016-17	2015-16	2014-15
563.15	556.07	469.51	458.04	708.54

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curriculum Design and Development

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

Response:

Successful learning and teaching depend on curriculum that is transparent and effective in terms of goals, learning activities, and assessment of learning outcomes. The institution is committed to provide programs of study that are career-oriented and are a foundation for long-term study and progression, producing graduates/post-graduates who are engaged, resilient and lifelong learners.

The institution and the departments are guided and monitored in the preparation of the course curriculum by two bodies, namely Board of Studies (BoS) and Academic Council. The step-wise procedure for curriculum, syllabi development is given below.

- Step1: A series of faculty meetings are conducted to monitor the Outcome-Based Education (OBE), stated POs, PSOs, and COs are identified and checked in line with the Vision, Mission of the institution and the departments also have a relevance to the local/regional/national/global developmental and professional needs. A major review of the curriculum takes place every two years and minor review may take place as per the changes in regulatory requirements and industry needs.
- Step2: The curriculum has been revised regularly to meet the professional and industrial needs of the present-day global world on par with a few leading institutions in India and Abroad.
- Step3: The institution hosts alumni meetings and takes views and suggestions for the changes required in the curriculum as per the global/local arena.
- Step 4: To have the right mixture of curriculum, pedagogy, and assessment to achieve the desired outcomes a meeting of the Board of Studies (BoS) is convened. This body comprises the senior faculty of the department and five experts, one JNTUK nominee, one alumni representative, two from academia and one from the industry. During this meeting, the feedback and suggestions made by stakeholders are discussed, and a scheme of instruction along with detailed syllabi, credits, and other details are prepared and submitted to the academic council for its approval.
- Step 5: The academic council, headed by the principal, university representatives, comprising of eminent professors, industrial experts and heads of all departments as its members discuss and evaluate the scheme and syllabi and approve the same with necessary modifications. During curriculum development, the needs of society and the vision and mission of the department form the background. The curricula of all the programs conform to the three broad learning domains such as Knowledge, Skill, and Values/ Our curriculum has a good blend of science, technology, engineering and mathematics(STEM). The syllabus of all the program maps to the AICTE model of curriculum and thereby meets national needs. The learning objectives have been defined for all the courses across all programs, the course outcomes have been developed at the appropriate Bloom's levels in all the courses and their attainment levels have been measured and compare with the threshold levels. The curricula have been designed taking the global technological needs, The local

needs are captured through industry representatives in the board of studies of all programs and courses, many graduates have been successfully placed in top companies as well local technological requirements.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

1.1.2 Percentage of Programmes where syllabus revision was carried out during the last five years.

Response: 100

1.1.2.1 **Number of all Programmes offered by the institution during the last five years.**

Response: 13

1.1.2.2 **How many Programmes were revised out of total number of Programmes offered during the last five years**

Response: 13

File Description	Document
Minutes of relevant Academic Council/BOS meeting	[View Document](#)
Details of program syllabus revision in last 5 years(Data Template)	[View Document](#)
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

1.1.3 Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the institution.

Response: 100

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
155	269	434	244	519

File Description	Document
Programme / Curriculum/ Syllabus of the courses	View Document
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(Data Template)	View Document
Link for Additional Information	View Document

1.2 Academic Flexibility

1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years.

Response: 20.6

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

Response: 334

1.2.1.2 **Number of courses offered by the institution across all programmes during the last five years.**

Response: 1621

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

1.2.2 Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course system has been implemented (Data for the latest completed academic year).

Response: 100

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

Response: 13

File Description	Document
Minutes of relevant Academic Council/BOS meetings	[View Document](#)
Institutional data in prescribed format	[View Document](#)
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

1.3 Curriculum Enrichment

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

Response:

The institution incorporates several cross-cutting societal issues into the curriculum. The following are the efforts made by Swarnandhra College of Engineering and Technology in this direction.

1.Professional Ethics & Intellectual Property Rights

A course on Professional Ethics & Intellectual Property Rights is offered as mandatory to all the students during the programme of study. The issues in professional ethics are analyzed in the context of the right understanding with the main focus on the development of ethical competence in individuals. The course concludes by proposing several salient steps to undertake the journey towards holistic and value-based living.

Engineering is one of the professional studies which helps to produce many useful products to foster a comfortable life for human beings. Engineers do an earnest and industrious job, which leaves a profound impact on life while they reflect their responsibilities. It is supposed that engineers should follow a set of ethical values in making decisions in an organization.

This course has been designed in a way to impart ethical values among young engineers, which is further liable to develop clarity in thought and decision making. It also makes them think logically and sensibly to reflect their work as an engineer at their workplace. By the end of this course, students will be equipped with qualities required for the protection of intellectual property, which is being a major concern of many companies today. Thus it is a course, which makes an individual acquire the psychological ability through understanding, thought, experience, and perception.

2. Environment and Sustainability

This course introduces the academic approach of sustainability by covering the general understanding of what constitutes the rates of a renewable resource and non-renewable resource, Environmental Studies, Ecosystems, Pollution, Waste management, and where these processes can be continued indefinitely without sacrificing the needs of future generations. It is a course to equip students in a better way of making informed decisions and taking economically feasible actions that are in the interests of protecting

nature. The curriculum provides the opportunity of going through the Environmental Impact Assessment process as well.

Over the past three decades, National resources management has emerged to manage and sustain natural resources, particularly, focusing on the quality of life for future generations. The course has been designed in line with the ways of sustainability of the natural environment. It is the need of the hour that every individual has to feel responsible for managing, maintain, and sustain the natural wealth to avoid it being jeopardized.

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

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

Response: 109

1.3.2.1 **How many new value-added courses are added within the last five years**

2018-19	2017-18	2016-17	2015-16	2014-15
40	31	14	12	12

File Description	Document
List of value added courses (Data Template)	View Document
Brochure or any other document relating to value added courses	View Document
Any additional information	View Document
Link for Additional Information	View Document

1.3.3 Average Percentage of students enrolled in the courses under 1.3.2 above.

Response: 76.2

1.3.3.1 Number of students enrolled in value added courses (beyond the curriculum) offered year-wise during last five years.

2018-19	2017-18	2016-17	2015-16	2014-15
2889	2816	1120	1488	1625

File Description	Document
List of students enrolled	View Document
Link for Additional Information	View Document

1.3.4 Percentage of students undertaking field projects/ internships / student projects (Data for the latest completed academic year)

Response: 22.7

1.3.4.1 **Number of students undertaking field projects / internships / student projects**

Response: 631

File Description	Document
List of programs and number of students undertaking field projects / internships / student projects (Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

1.4 Feedback System

1.4.1 Structured feedback for design and review of syllabus – semester-wise / year-wise is received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni
E. None of the above

D. Any 1 of the above

C. Any 2 of the above

B. Any 3 of the above

Response: A. All 4 of the above

File Description	Document
Any additional information	[View Document](#)
Action taken report of the Institution on feedback report as minuted by the Governing Council, Syndicate, Board of Management	[View Document](#)
URL for stakeholder feedback report	[View Document](#)
Link for Additional Information	[View Document](#)

1.4.2 The feedback system of the Institution comprises of the following :
E. Feedback not obtained

D. Feedback collected

C. Feedback collected and analysed

B. Feedback collected, analysed and action taken

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

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)
URL for stakeholder feedback report	[View Document](#)

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Average Enrolment percentage (Average of last five years)

Response: 63.32

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

2018-19	2017-18	2016-17	2015-16	2014-15
713	882	773	804	563

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

2018-19	2017-18	2016-17	2015-16	2014-15
1218	1218	1218	1218	1002

File Description	Document
Institutional data in prescribed format (Data Template)	[View Document](#)
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

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

Response: 66.48

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

2018-19	2017-18	2016-17	2015-16	2014-15
303	354	301	300	195

File Description	Document
Institutional data in prescribed format	[View Document](#)
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

2.2 Catering to Student Diversity

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

Response:

Orientation Program

At the beginning of the first year, the Orientation Program is being conducted for three weeks, which includes Personality Development, Yoga, Basic and Vedic Mathematics. Such types of programs are very helpful to students.

Assessment of learning levels of students

Students are categorized as advanced learners and slow learners based on their performance in internal examinations and mentoring. This process is also adopted in the remaining semesters.

Special Programs offered for slow learners

Accordingly, the slow learners are given additional learning assignments and corresponding arrangements are made in the form of special classes and remedial classes. Concerned faculty members clarify their doubts.

Special Classes

Special Classes are being conducted regularly by the respective faculty members beyond their working hours. Because of the difficulties faced by the slow learners, more emphasis has been given in the form of allotting more time.

Special Programs for advanced learners:

Special coaching is also given to the advanced learners for GATE exam. The faculty members clarify their doubts and make them prepare for the GATE exam.

The inistitution has been providing more facilities to the advanced learners to make them use the latest technology in the form of giving guidance to do project works, and field visits are being arranged to enhance their skills. Professional guidance, Soft Skill training programs, and career counseling programs have been extended through the Training and Placement cell and Entrepreneurship Development Cell. The institution encourages the meritorious students to participate in workshops using the latest technologies. In

order to develop a research bent of mind among the students, they are encouraged to publish research articles along with the faculty in journals**.**

Bridge Course

A bridge course is being conducted in the Mathematical Foundation and Essential of Programming for lateral entry students.

Apart from the above, **remedial classes** are also being conducted for students who have backlogs.

Mentoring System

To extend a proper guidance, students are assigned to a mentor. The main objective is to keep the track of the progress of the students and accordingly an academic and career guidance have been extended in the form of counseling. Parents are informed timely whenever the necessity arises such as attendance shortage and poor academic performance. Outside counselors are also invited for further counseling to deal their psycho-social problems.

Counseling hours

In addition to that Counseling, hours are also included in the time table. During these hours each faculty gives guidance to 20 students. They do mentor to the students and help them to overcome their problems.

Overall Development:

The College puts efforts to foster the overall development of the students, which includes academic programs, literary, cultural, and sports activities. Such activities are helpful to make an individual to emerge as an intellectually mature being.

The above system developed by the college has been proved effective. Students are taking more interest in studies, publishing papers in journals, paper presentations, preparation of models, and participation in extra and co-curricular activities. The academic has also been well improved.

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

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

Response: 13.18

File Description	Document
Any additional information	View Document
Link for 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:

Student-centric methods:

Swarnandhra College of Engineering and Technology has adopted an innovative teaching methodology to foster skill-based and outcome-based education. The objective of the institution is to enhance learning by creating and supplying the students with the adequate stimulus to mold them to be independent and grab the opportunity to participate in student-centered learning. The institution adopts the student-centric methods in the following ways:

Experiential Learning:

The institution provides the following opportunities to the students to attain knowledge through experiential learning**.**

- **Laboratory**

The institution provides a learning environment to the students in the laboratory to acquire practical knowledge. The faculty members encourage the students and give autonomy to discuss, revise, modify and access while doing experiments. In order to provide learning experience, students are encouraged to do experiments using virtual labs.

- **Smart Classrooms**

The institution has been provided Smart Classrooms. Video lectures are being displayed in the Smart Classroom, and animation is also used**.**

- **Mini Projects**

The faculty members encourage the students to prepare mini projects for developing their learning skills and innovative skills.

- **Subject-wise projects**

Subject-wise projects are being given to the students to understand the concept clearly**.**

- **Group projects**

Group projects have been assigned to the students. The College faculty gives mentoring, motivation and conduct discussions among the students from the first year to final year to complete the work effectively within the time.

- **Internships**

The institution helps the students to go for internships, which are helpful to get real-life industrial experience.

- **Case studies**

The faculty members encourage the students to observe case studies that are helpful to improve the skills of critical thinking in diverse fields of Technology, Management, Marketing, and Finance.

Participatory Learning:

Participatory learning makes learning accessible and offers open participation and progression through different stages of achievement. It further establishes a healthy learning environment for the students.

Active Learning:

The students are encouraged to participate actively in activities like pair share, in-class team and Jigsaw which are helpful to the students to sharpen their critical thinking and problem-solving skills.

Learning Management System -Google Classroom and Canvass:

The faculty members utilize the ICT enabled teaching which includes E-learning resources like Canvass and Google Class room. The College faculty have been using Google Classroom and Canvass effectively for the development of the students. Assignments are being sent to them through LMS. The latest developments in the concerned subject and instructions relating to the work are being intimated to them through it.

Seminars:

The Seminars are being organized in the college on subjects and contemporary topics to enrich their knowledge and enhance their learning experience.

Massive Open Online Courses (MOOCs):

The students are being encouraged to do MOOCs through NPTEL, SWAYAM and have got access to video lectures for effective teaching-learning practice.

Problem-based Learning:

Students are being given problems from prescribed books and reference books as an assignment. The faculty members interact with the students in a friendly way and explain the difficult topics whenever

required and improve their performance.

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

2.3.2 Teachers use ICT enabled tools including online resources for effective teaching and learning processes

Response:

Swarnandhra College of Engineering & Technology has been utilizing ICT to enable tools for enhancing learning through interaction and collaboration. The College provided facilities like Smart Classrooms and internet facilities with Wi-Fi to encourage the usage of ICT tools among students. The faculty members have been encouraging the students to join in Google Classrooms and Canvas and also form Whatsapp groups. These tools are helpful for faster learning and improve teaching methods. The students have been part of the groups as mentioned above and utilizing the ICT tools actively and effectively. They have been maintaining interaction and coordination by using ICT tools for enhancing their knowledge. The following ICT tools are being used in the College, which provides access to a wide-range of up-to-date learning materials.

Google Classroom:

The faculty members, as well as students, have been the part of Google classroom. The faculty members share materials, conduct, distribute and grading assignments among students through Google Classroom. It is also helpful to the teaching faculty for monitoring the progress of students.

Canvas:

Canvas is one of the useful LMS which is part of the College. The faculty members of the College use it for grading assignments, conducting quizzes, discussions, and conferences. The students are also actively participated in the programs as mentioned above and respond actively.

MOOCs:

The faculty members and the students of the College have been doing MOOCs like NPTEL and other courses that are helpful to get access to the best of educational content. They have been the part of NPTEL for enhancing their knowledge. The College provides facilities like digital classrooms with internet facilities for watching the videos of NPTEL. The facilities are also being provided in the library for enrolling, watching videos and submission of Assignments, etc. relating to MOOCs like NPTEL.

Whatsapp:

The faculty members of the College have been encouraging the students to form separate Whatsapp groups

relating to the concerned subjects for the clarification of the doubts of the students. They respond to the doubts of the students and clarify them.

Digital library:

Digital library has been provided in the College which provides a sufficient number of computers with internet and Wi-Fi facilities. The digital library is very useful for the students as well as teaching faculty members for going through e-journals and updating their knowledge.

Swarnandhra College of Engineering and Technology (Autonomous), Seetharamapuram adopts the policy of providing all ICT tools to the students and faculty members for enhancing effectiveness and quality in the teaching-learning process.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document
Provide link for webpage describing ICT enabled tools including online resources for effective teaching and learning process	View Document

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

Response: 16.35

2.3.3.1 **Number of mentors**

Response: 170

File Description	Document
Upload year wise, number of students enrolled and full time teachers on roll	View Document
Circulars pertaining to assigning mentors to mentees	View Document
Any additional information	View Document
Link for additional information	View Document

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

Response:

The College Academic Committee which includes the Principal, Head of Departments, Senior faculty members, IQAC and Controller of Examinations prepares the Academic Calendar. The Academic Council reviews it and recommends for the revision if requires and approves. It shows the details about the number of instruction weeks to be conducted, details of Mid Examinations, schedule of End theory and practical Examinations, holidays for the semester and also provides an adequate balance between academic and non-academic activities. The departments prepare a timetable for the semester based on academic calendar which also includes workshops, conferences, visiting faculty lectures, seminars, industrial visits etc.

Each semester, the faculty prepares a lesson plan which includes the details about the number of hours to be taken for each unit, course outcomes, delivering methods and reference textbooks, etc. Lesson plans are verified and approved by the Head of the Departments and Principal. Periodically, the Head of the departments and Principal verify the course delivery of the lesson plan and progress of the units covered. Internal Quality Assurance Cell (IQAC) verifies the same and gives suggestions if required.The syllabus of each programme is the basis for preparing the academic calendar and master time table.Academic calendar also includes planning for co curricular and extra curriclar activities such as indcutry visits,project works other than the final year projects,small research work,quiz and activities related to cross cutting issues viz envrionmental science,research methodolgoies,gender sensitization etc. Time table committe prepares and communicates the academic planning to all the stakeholders.Academic planning and Monitoring committe meets once in six months to verify the status of the effectiveness of the implementation in all programs,suitable mid semester correction and corrective nmesaures are initiated to overcome the obtacles or rootcauses affectig the academic planning and implementation.

Instituion encourages all faculty memebrs to use ICT enabled tools and pedagogies and appropriate teaching delievry methods are employed in the lesson planning.Appropriate rubrics is employed for formative evaluation and attainment of course outcomes.Various learning initiaves such as participatory learning, experiential learning, collaborative learning,problem solving methodologies,group discussion,project based learning etc are covered in the academic planning at various levels. Emphasis is given to choose a multideciplinary approcah by faculty so that the course outcomes are evaluated in a systematic manner throughout the semester and sufficent time is given to students to prepare themselves for learning and evaluation.

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File Description	Document
Upload Academic Calendar and Teaching plans for five years	[View Document](#)
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

2.4 Teacher Profile and Quality

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

Response: 94.87

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

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

Response: 9.51

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

2018-19	2017-18	2016-17	2015-16	2014-15
26	20	14	16	17

File Description	Document
Institutional data in prescribed format (Data Template)	[View Document](#)
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

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

Response: 6.33

2.4.3.1 **Total experience of full-time teachers**

Response: 1336

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for 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 year-wise during the last five years

Response: 20.14

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
17.53	22.15	25.45	18.8	16.75

File Description	Document
Institutional data in prescribed format (Data Template)	View Document
Any additional information	View Document
Link for 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: 0.04

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
1	2	2	0	0

File Description	Document
Number of complaints and total number of students appeared year wise	[View Document](#)
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

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

Response:

Rules and Regulations for Examinations and Evaluation System of U.G. and P.G. Programs Approved by Academic Council

Continuous Internal Examinations (CIE) for U.G and P.G

1. CIEs of theory and laboratory are conducted by the course teacher all through the semester as per the rules and regulations mentioned in academic regulations.
2. The marks obtained by the student in CIE displays in the respective departments for verification.

Semester End Examinations (SEE) for U.G and P.G

1. The external theory examinations are conducted at the end of the semester.
2. The external examiner sets the question paper as per the rules prescribed in academic regulations. Duration of Semester End Examination is 180 minutes.

Appointment of Question Paper Setters and Examiners:

All Question Papers are set by External Examiner, who has minimum eight years of experience as Associate Professor level or above and also has thought the course.

Selection of Question Paper:

On each day of examination, CCE and CE draw at random one of the sealed covers containing Question Papers (6 Sets) and open the required number of packets of question papers at least one hour before the start of examination.

Semester End Examination for Lab courses and Project Work

1. Semester End Examination for lab shall be conducted as per the examination schedule approved by EC and the guidelines given in academic regulations.
2. For external evaluation of UG project and PG project, external examiner from other college is mandatory.
3. HOD of concerned department shall send the required panels of external examiners for UG and PG

projects to the exam cell through proper channel.

4. After the lab examination of the course is over, internal examiner along with the other examiner shall prepare the mark list, and submit it in sealed envelope to exam cell on the same day.

Supplementary Examinations:

Supplementary examinations are conducted as per the academic regulations

Central Assessment / Evaluation:

Assessment of answer books of semester end examination shall be done by external evaluators. Evaluation shall be done as per scheme of valuation prepared by paper by paper setter.

Semester End Examination Result:

Results are usually declared within three weeks from the date of the last examination.

Revaluation of Answer books:

Candidates can apply for revaluation of the answer scripts. Revaluation will be done only for Theory subjects.

Integration of IT in Examination System:

Entire Examination Process is automated starting from Registration to result declaration.

Positive Impacts of Reforms in Examination System:

1. Confidentiality in question paper selection and prevention of leakage.
2. Uniformity in the evaluation and fair justification to the students.
3. Eliminates the possibilities of unfair things during the examination.
4. Data processing is accurate and no human errors.
5. Reliable and no scope for manipulations.
6. Considerable improvement in the speed, reliability, efficiency, security, transparency, confidentiality and accuracy in the entire process of examination.
7. Access of result of their ward by parents

File Description	Document
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

2.6 Student Performance and Learning Outcomes

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

Response:

The Program Outcomes (POs) are defined by the statutory body (NBA) to meet the global standards of education. Twelve POs are defined for the UG & PG programs. Two or three Program Specific Outcomes (PSOs) are identified based on the strengths and expertise of the department.

A Course Outcome (CO) is the expectation of the performance by the learner in a course. The course outcomes are mapped to the program outcomes and program specific outcomes.

The Course outcomes are prepared by concerned faculty for their course using Bloom's Taxonomy Levels (BTLs) with the guidance of Course coordinator and ratified by the module coordinator.

The course outcomes are identified as per the content and intent of the course or topics. The course outcomes are planned and designed to cover the entire syllabus and are approved by the Board of Studies.

The POs, PSOs and COs are published in the Curriculum book and departmental website. They are made accessible to all the stakeholders of the program through the website.

Mechanism of Communication

Lesson plans and Course Information Sheets are prepared for every course by the respective faculty and circulated to students. Lesson plan contains COs and the topic in the course to which each CO is mapped to. POs are listed in the Course Information Sheet. The Course Information Sheet also contains the CO-PO mapping matrix. Handouts are circulated also contain respective COs. Even in internal Examinations, it has been made a practice to indicate the Bloom's Taxonomy Level of each question and the CO to which the question is mapped. This is done so as to help in CO attainment computation.

The Program Specific Outcomes are published in the following:

Department website College website Curriculum / syllabus books Display boards Additionally, the dissemination of Program Specific Outcomes to all the stakeholders of the programme is done through student awareness / induction programmes, faculty meetings and parents meeting.

The Programme Outcomes are published in the following: Department website College website Curriculum / syllabus books Display board.

File Description	Document
Upload COs for all courses (exemplars from Glossary)	[View Document](#)
Link for Additional Information	[View Document](#)

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

Response:

The Program Outcomes (POs) are defined by the statutory body (NBA) to meet the global standards of education. Twelve POs are defined for the UG & PG programs. Two or three Program Specific Outcomes (PSOs) are identified based on the strengths and expertise of the department.

A Course Outcome (CO) is the expectation of the performance by the learner in a course. The course outcomes are mapped to the program outcomes and program specific outcomes.

Course Outcome(CO) Attainment :

Step I:

COs for the respective subject are defined by course coordinator four to six COs are defined per course. Knowledge Level is also specified against the respective CO.

Step II:

The defined COs are then mapped to Progam Outcomes (POs) and Program Specific Outcomes (PSOs). The course coordinator performs this mapping. Mapping is done on four levels, 0,1, 2 & 3, with 3 being excellent and 0 being poor.

Step III:

Course attainment is computed using a predefined rubric. The assessment process is based on direct and indirect methods. The direct method involves three assessment tools, namely, Internal Examinations, Assignments, End Examinations. Indirect Assessment involves one assessment tool, which is the Course End Survey. The rubric defines the levels in each tool. For instance, considering internal examination, the attainment per student per CO is defined based on the percentage of marks secured by that student for that CO. If the student's secured percentage is greater than or equal to 60% for that respective CO, his/her level is 3, else if the same is greater than or equal to 50% and less than 60%, then the level is 2, else if the secured percentage is greater than or equal to 40% and less than 50%, the level is 1, else the level is 0. The attainment levels are defined similarly for other assessment tools.

Net CO attainment per student is computed as the sum of 40% of attainment in Internal Examination, 20% in assignment, 10% of Course End Survey and 30% of his/her attainment in University examination. Class attainment for each CO is computed by averaging the individual student attainments for that CO. Course Attainment is computed by averaging CO attainments for total class.

PO & PSO Attainment

PO & PSO attainment is computed using two methods: (1) Direct Method and (2) Indirect Method.

In Direct Method, PO & PSO attainment of each course is used. PO attainment for each course is computed by normalizing the course attainment for that PO. All the PO attainment for each course are documented. Average of all the contributing courses is calculated.

In indirect method, program exit survey is performed.

Final PO attainment is computed as 80% of the direct method and 20% of the indirect method.

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

2.6.3 Pass Percentage of students

Response: 96.77

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

Response: 749

2.6.3.2 **Total number of final year students who appeared for the examination conducted by the Institution.**

Response: 774

File Description	Document
Upload List of Programmes and number of students passed and appeared in the final year examination(Data Template)	View Document
Any additional information	View Document
Link for the annual report	View Document

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response:

File Description	Document
Upload database of all currently enrolled students	View Document

Criterion 3 - Research, Innovations and Extension

3.1 Promotion of Research and Facilities

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

Response:

Research Promotion Policy

The promotion of research is the backbone to sustain the research environment in the campus. The purpose of this policy is to establish procedures for the conduct of research and scholarly activity and to promote applied research and innovation. The composition of the research committee is as follows:

- Chairperson (Principal)
- Research Coordinator
- Department research coordinator
- Expert member

The research committee meets twice a year and reviews various research activities in the institute and suggest a plan of action to improve R&D activities. It guides on various ways and means to create a research culture in the institute. In addition, it identifies thrust areas, current research directions and research funding opportunities.

The research policy of the institute is intended in a way that faculty can carry out research effectively as they are guaranteed certain freedom and are required to accept corresponding responsibilities. The following policies are in place to achieve excellence at the forefront of research.

- Faculty members are encouraged to enroll in a Ph.D. program and to avail seed money to carry out their research work.
- Faculty members are motivated to present and publish papers in reputed Journals and conferences with financial support.
- Faculty members are encouraged to apply for research funding to different agencies such as DST, DRDO, UGC, AICTE, MHRD etc.,
- To augment the research, faculty are provided excellent computational facilities to carry out the simulation study.
- Publications in reputed journals are rewarded with attractive cash incentives to motivate the faculty.
- The budget can be allocated to carry out the research work.
- Workload can be curtailed those who have registered part-time Ph.Ds and principal invigilators.
- To encourage the students in doing best projects by providing seed money.

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

3.1.2 The institution provides seed money to its teachers for research (average per year, INR in Lakhs)

Response: 5.05

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
6.6	4.75	4.6	4.64	4.65

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

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

Response: 0.31

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

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

File Description	Document
List of teachers and their international fellowship details	[View Document](#)
e-copies of the award letters of the teachers	[View Document](#)

3.2 Resource Mobilization for Research

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

Response: 32.34

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

2018-19	2017-18	2016-17	2015-16	2014-15
8.84	.71725	1.682	2.8566	18.248

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](#)

3.2.2 Percentage of teachers having research projects during the last five years

Response: 0.82

3.2.2.1 **Number of teachers having research projects during the last five years**

2018-19	2017-18	2016-17	2015-16	2014-15
2	1	1	1	3

File Description	Document
Names of teachers having research projects	[View Document](#)
Any additional information	[View Document](#)
Link for additional information	[View Document](#)

3.2.3 Percentage of teachers recognised as research guides

Response: 1.42

3.2.3.1 **Number of teachers recognized as research guides**

Response: 3

File Description	Document
Upload copies of the letter of the university recognizing faculty as research guides	[View Document](#)
Any additional information	[View Document](#)
Link for additional information	[View Document](#)

3.2.4 Average percentage of departments having Research projects funded by government and non-government agencies during the last five years

Response: 17.5

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

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

3.2.4.2 **Number of departments offering academic programes**

2018-19	2017-18	2016-17	2015-16	2014-15
8	8	8	8	8

File Description	Document
Supporting document from Funding Agency	[View Document](#)
List of research projects and funding details	[View Document](#)
Paste link to funding agency website	[View Document](#)

3.3 Innovation Ecosystem

3.3.1 Institution has created an eco system for innovations, creation and transfer of knowledge supported by dedicated centers for research, entrepreneurship, community orientation, Incubation etc.

Response:

The institution promotes innovative incubation centers in the campus to encourage students towards innovative ideas. It aims to be a pivot for novel ventures in the domains of science and technology and education. To enhance the learning process towards an ingenious way of education, the institution has conducted various workshops and seminars through the incubation center. In order to reinforce entrepreneurship among the student community, an incubation centre has been established with the support of Andhra Pradesh State Skill Development Corporation (APSSDC). The various programs organized by the institution through the centre are as follows:

- Embedded with IoT
- Web development powered by Python
- Mobile App development
- Google Android development
- 3D Experrreience Lab by Dassult Systems
- Entrepreneur Awareness

The institute has developed a strong eco system for innovation and incubation activities. In the institute, Mechanical Engineering Department has been recognized as research centre by JNTUK, Kakinada. The establizhed reearch centre has well equipped centralized facilities like 3D prin ter.

Nano Technology Research laboratory was establizhed in 2009. It carries out research in the fields of VLSI, Nano materials, signal processing, communication systems etc. UV-VIS Spectro Photometer installed for the characterization study of reflection, transmission and absorption of the prepared micro and nano material structures.

Further the centre, arranging lectures, seminars, workshops and value added programs to the students with the necessary professional skills to meet the global standards. The institution also recognizes the students who come up with an innovative idea and make them job-ready, the institution offers foreign university certification courses for a subsidized fee to the students through this Centre.

File Description	Document
Upload any additional information	[View Document](#)
Paste link for additional information	[View Document](#)

3.3.2 Number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR),entrepreneurship, skill development during the last five years.

Response: 10

3.3.2.1 Total number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR),entrepreneurship, skill development year-wise during the last five years.

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

File Description	Document
Report of the event	[View Document](#)
List of workshops/seminars during last 5 years	[View Document](#)

3.4 Research Publications and Awards

3.4.1 The institution ensures implementation of its stated Code of Ethics for research through the following:

    1.**Inclusion of research ethics in the research methodology course work**
    2.**Presence of institutional Ethics committees (Animal, chemical,bio-ethics etc)**
    3.**Plagiarism check**
    4.**Research Advisory Committee**

E. None of the above

D. 1 of the above

C. 2 of the above

B. 3 of the above

Response: B. 3 of the above

File Description	Document
Any additional information	[View Document](#)
Link for additional information	[View Document](#)

3.4.2 Number of Ph.D's registered per teacher (as per the data given w.r.t recognized Ph.D guides/ supervisors provided at 3.2.3 metric) during the last five years

Response: 0.33

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

Response: 1

3.4.2.2 Number of teachers recognized as guides during the last five years

Response: 3

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

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

Response: 1.6

3.4.3.1 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
84	51	40	78	58

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

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

Response: 0.13

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

2018-19	2017-18	2016-17	2015-16	2014-15
9	5	2	4	6

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

3.4.5 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: 0

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

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

Response: 0

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 Revenue generated from consultancy and corporate training during the last five years (INR in Lakhs).

Response: 11.78

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

2018-19	2017-18	2016-17	2015-16	2014-15
11.126	0.20	0.2	0.25	0

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

3.5.2 Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs).

Response: 16.24

3.5.2.1 **Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs)**

2018-19	2017-18	2016-17	2015-16	2014-15
14.99	0.35	0.30	0.30	0.30

File Description	Document
List of training programmes, teachers and staff trained for undertaking consultancy	View Document
List of facilities and staff available for undertaking consultancy	View Document
Audited statements of accounts indicating the expenditure incurred on developing facilities and training teachers and staff for undertaking consultancy	View Document
Any additional information	View Document

3.6 Extension Activities

3.6.1 Extension activities are carried out in the neighbourhood community, sensitising students to social issues, for their holistic development, and impact thereof during the last five years

Response:

The life of a student is not only academics but also should have social responsibility. Keeping this point in view, Swarnandhra College of Engineering & Technology (SCET) has been instilling a culture of social responsibility within the students and create a positive and productive environment. The College has been

playing the brisk role in helping the needy and initiated many extension programs through NSS and other organizations. Many programs are being organized for the welfare of society.

The Programs are as follows:

Swatch Bharat Campaign: The College NSS has been conducting the "Swatch Bharat Campaign" at different places. The College students have participated in the campaign and created a kind of awareness among the people about Swatch Bharat. They also learned about how to maintain cleanliness in his surroundings.

Awareness Program on the usage of Helmets: The College NSS unit conducts awareness programs on usage of Helmets along with RTO, Narsapur. This program has given awareness about the importance of taking precautions relating to Road Safety among people. The students also learnt about the importance of wearing helmets.

Vanam Manam: The College NSS initiated the program "Vanam Manam". It creates awareness among the people about Greenery. In the camp, the students have been planted trees and explain about the importance of reducing Global warming. They also learnt the importance of afforestation.

Health Youth for Healthy India: The College NSS has been conducting Health Youth for Healthy India for six days by adopting one village. During this camp, different programs are being conducted. This program enhances communication skills, life skills, leadership qualities and problem-solving abilities among the students.

Blood Donation Camp: The College has been conducted Blood Donation camps. Our College students always come forward and donate their blood to the needy people. Such types of camps nurture the quality of donating blood to needy people.

Voter Enrollment Program: The College students actively participate in the Voter Enrollment Program and create awareness about the importance of Voter Enrollment among the people. Students also recognize the value of their vote.

Social concent to poor and physically challenged people: The College students started" New Colors" and give financial support to the poor ,physically challenged people and also prrovide medical assistance to the needy people along with management contribution .

In addition to above programs, College has been conducting many activities like Blood grouping, Career guidance to school children International Yoga Day, Flag Day, Mass plantation, Medical camps, Blankets Distribution for poor etc. The focus of the SCET is not merely upon the academics but on the holistic or overall development of the students.

By participating in the extension activities, students learnt the qualities like mingling with the people, identify their problems and finding solutions, enhance their communication skills, life skills and leadership qualities, the importance of keeping their surroundings clean and maintain healthy life style. The College feels the social responsibility and has been initiating extension activities that are helpful to the needy people and also for the overall development of the students.

File Description	Document
Upload Any additional information	[View Document]
Paste link for additional information	[View Document]

3.6.2 Number of awards and recognition received by the Institution, its teachers and students for extension activities from Government / Government recognised bodies during last five years

Response: 19

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

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

File Description	Document
Number of awards for extension activities in last 5 year	[View Document]
e-copy of the award letters	[View Document]

3.6.3 Number of extension and outreached Programmes conducted by the institution through NSS/ NCC/ Red Cross/ YRC etc., (including the programmes such as Swachh Bharat, AIDS awareness, Gender issues etc.) and / or those organised in collaboration with industry, community and NGOs during the last five years.

Response: 107

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	23	21	21	22

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

3.6.4 Average percentage of students participating in extension activities listed at 3.6.3 above during the last five years

Response: 51.53

3.6.4.1 **Total number of students participating in extension activities listed at 3.6.3 above year-wise during the last five years.**

2018-19	2017-18	2016-17	2015-16	2014-15
1300	1595	1134	1110	1490

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

3.7 Collaboration

3.7.1 Number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work

Response: 10.2

3.7.1.1 **Total number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work**

2018-19	2017-18	2016-17	2015-16	2014-15
17	12	10	6	6

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

3.7.2 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: 34

3.7.2.1 **Number of functional MoUs with institutions of national, international importance, other Institutions, industries, corporate houses etc. year wise during last five years**

2018-19	2017-18	2016-17	2015-16	2014-15
16	5	3	1	9

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 Institutions 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 infrastructure and physical facilities for teaching- learning. viz., classrooms, laboratories, computing equipment etc.

Response:

Swarnandhra College of Engineering &Technology (SCET) possesses a well-maintained campus spread over 25.06 acres of serene green land. The existing infrastructural facilities are utilized for conducting theory and practical classes. There are altogether 20 buildings. The college has 67 well-furnished classrooms, three AC Seminar Halls, one AC Conference Hall, 86 Well-equipped Laboratories, four Drawing Halls, two English communication skills labs, Six Research Laboratories, nine e-class rooms, 42 LCD Projectors, Central Library along with Departmental Libraries, Digital Library, Internet Center, Student Rest Rooms, Staff Rooms with Computers, Laptops, ICT Web facilities, Intercom, Campus under CC TV surveillance, internet with Wi-Fi Connectivity and uninterrupted power supply facility. Every department has a separate smart classroom.

The institution buildings and other infrastructure are well maintained under the supervision of the Principal with the assistance of the Management and Staff. The college has academic infrastructural facilities in compliance with AICTE norms. The Central library is equipped with facilities like reprography, computers, printers, and internet and is fully automated. The Central Library has a collection of 6,306 titles and 41,312 volumes. It subscribes 125 National and 220 International journals. The digital library provides online material to staff and students throughout the year.

The college has adequate computer facilities and other learning resources, which are extensively used for academic and administrative purposes. It has twelve computer laboratories for the students with 1056 computers and nine servers for their maintenance. In separate computer center, 150 computers have been earmarked exclusively for conducting online examinations, internet facility along with digital library. All the computers are interconnected with Local Area Network (LAN) in respective labs. There are three full-time computer networking centers and a system administrator along with his team for the maintenance of all the computers in the college.

All the departments of the college are fully equipped with the latest technology. Every department faculty members have their computing facility with the latest software to meet their requirements of major/mini projects and research activities. The college has established Advanced Research Laboratory facilities in specific areas to inculcate research habits among the student fraternity.

File Description	Document
Upload Any additional information	[View Document](#)
Paste link for additional information	[View Document](#)

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

Response:

OUTDOOR COURTS:

The institution has a big playground consists of excellent outdoor courts which are useful to play sports and games, viz., cricket, football, volleyball and athletics, etc. Students interested in these are given special training by trainers along with the Physical Education Department staff to develop the skills of students.

Different sports activities have been performed at the institution level, inter-collegiate, inter-university, inter-state and national level. Many students have participated in different events at inter-university. Many of them received awards at different events.

S.No	Description of Sport/Game	Total Area in Sq. Mtrs.	Utilization by the Students Per day
1	Athletics Non-Standard Track 200 (mtrs)	3200	15
2	High Jump and Long Jump Pit	540	6
3	Cricket	6400	40
4	Volley Ball Court	1265	30
5	Throw Ball Court	510	20
6	Basket Ball Court	1760	20
7	Tennikoit Court	270	15
8	Kabaddi Court	676	30
9	Badminton Court (Boys)	405	12
10	Badminton Court (Girls)	567	10

INDOOR COURTS:

S. No	Description of Sport/Game	Total Area in Sq. Mtrs.	Utilization by the Students per day
1	Chess	24	10
2	Carroms	16	24
3	Table Tennis	77	16

YOGA:

The institution often conducts Yoga Classes to the students and the staff. It also observes International Yoga Day under the guidance of eminent persons in Yoga. The Seminar hall accommodates 200 students for doing Yoga. Mats are also provided to the students and staff.

GYM FACILITIES:

The institution has twelve station Gymnasium along with all facilities and equipment. It also has a steam bath facility. Boys and Girls are allowed to the Gym on separate days and timings.

S. No.	Description of Equipment	Total Area In Sq. Mtrs.	No of students participating per day
1	Twister Stand	4	50
2	Walkers	9	60
3	Pushups Stand	4	20
4	Cycles	12	30
5	Abs Pro	4	10
6	Weight Lifting Stands and Dumbles	15	55
7	Vibration machine	4	25
8	Steam Bath	15	6
9	TwelveStation Multi Gymnasium	40	60
10	Treadmill	9	40

CULTURAL ACTIVITIES:

The institution has various platforms in the fields of co-curricular and extra-curricular activities for the overall development of the students. Swarnandhra celebrates Sankranthi Sambaralu (Pongal Celebrations) in the campus. Many clubs such as Vivekananda study circle, Bhuvanavijayam, Painting & Photography club, Models & Prototype club, Nature club, and ALECS club are initiated in the campus to energize the passion for the art and culture in students. The institution has Open Auditorium, spacious seminar halls and capacious open place for conducting the cultural activities.

File Description	Document
Geotagged pictures	View Document
Paste link for additional information	View Document

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

Response: 100

4.1.3.1 **Number of classrooms and seminar halls with ICT facilities**

Response: 72

File Description	Document
Upload any additional information	[View Document](#)
Institutional data in prescribed format	[View Document](#)
Paste link for additional information	[View Document](#)

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

Response: 19.01

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

2018-19	2017-18	2016-17	2015-16	2014-15
101.19	64.95	59.16	35.3	319.5

File Description	Document
Upload Details of Expenditure , excluding salary during the last five years	[View Document](#)
Upload audited utilization statements	[View Document](#)
Upload any additional information	[View Document](#)
Link for 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:

Knowledge and skills are the traditional outcomes of any mainstream of Engineering. The institution provides all facilities to the students to enhance their knowledge and skills through the central library, which is one of the sources for the students to update their knowledge. It was fully automated with Integrated Library Management System(ILMS) software EZ library in 2006.

EZ library server configurations are as follows:

- Processor Intel (R) Xenon(P) X 3430,
- Hard disk capacity 250 GB,
- Speed 2.4 GHz,

- RAM capacity 8GB
- Server name IBM X 3200 M3
- Version V 10.0.9.19-EZ library.

The central library consists of features like ILMS, which is very useful to the students as well as faculty members. With the introduction of the Integrated Library Management System software EZ library in the College Central Library, one can easily access the account information like books taken and due to return through student and staff members database, which is linked with ILMS software. The librarian enters the number of books available and names of the books, author name, purchase details, issue book details, reference books available in database. Every book is given a barcode with the number, and it is linked with the College ILMS system. The College Central Library has Online Public Access Cataloguing System (OPAC), which is helpful in searching the book availability and its location in the library. It is helpful to the students and staff members to avoid the time wastage. The ILMS system in the library provides better and efficient services to the students and faculty members.

The central library also includes a digital library with 20 computer terminals with 20 Mbps internet facility for the students and faculty members to access online journals and NPTEL lectures. The digital library is a member of DELNET which is very useful to the students. Researchers and faculty members utilize all the facilities in the central library.

File Description	Document
Upload any additional information	[View Document](#)
Paste Link for additional information	[View Document](#)

4.2.2 Institution has subscription for e-Library resources Library has regular subscription for the following:

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

E. None of the above

D. Any 1 of the above

C. Any 2 of the above

B. Any 3 of the above

Response: A. Any 4 or more of the above

File Description	Document
Upload any additional information	[View Document](#)
Institutional data in prescribed format	[View Document](#)
Details of subscriptions like e-journals, e-ShodhSindhu, Shodhganga Membership etc	[View Document](#)

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

Response: 5.2

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

2018-19	2017-18	2016-17	2015-16	2014-15
6.72	3.3	8.97	3.01	3.99

File Description	Document
Details of annual expenditure for purchase of and subscription to journals/e-journals during the last five years	[View Document](#)
Audited statements of accounts	[View Document](#)
Any additional information	[View Document](#)

4.2.4 Percentage per day usage of library by teachers and students during the last completed academic year

Response: 15.21

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

Response: 455

File Description	Document
Details of library usage by teachers and students	[View Document](#)
Any additional information	[View Document](#)

4.3 IT Infrastructure

4.3.1 *Institution has an IT policy covering wi-fi, cyber security, etc., and allocated budget for updating its IT facilities*

Response:

Swarnandhra College of Engineering and Technology(SCET) has a policy to establish and update IT facilities continuously to promote ICT activities in the teaching-learning process and extensive mobility for Research. Information technology policies ensure that everyone's use of the Institute's computing and telecommunications resources supports its educational, research, and administrative mission in the best possible way. The Information Technology (IT) Policy of the institute defines rules, regulations, and guidelines for proper usage and maintenance of these technological assets to ensure their ethical and acceptable use and assure health, safety, and security of data, products, facilities as well as the people using them.

IT policies include IT Hardware Installation Policy, Software Installation and Licensing Policy, Network (Intranet & Internet) use Policy, E-mail account use Policy, Web Site Hosting Policy, Institute Database Use Policy.

Any computer purchases made by the institute should make sure that such computer systems have all licensed software (operating system, antivirus software, and necessary application software) installed. Respecting the anti-piracy laws of the country, Institute IT policy does not allow any pirated/unauthorized software installations. Further, the IT policy of the Institute focusses on Internet issues like access restriction, web access, and downloads, content filtering, access time, messenger services, bandwidth limit, etc. The infrastructure in the campus provides a wide range of web services along with the Wi-Fi routers.

The entire campus is monitored by CCTV surveillance systems. SCET's video surveillance recording devices generally retain footage for 60 days. Any request to view or export camera video archives must be submitted to the Principal for approval. The college website of the institution is monitored and updated from time to time.

The institution provides free access to the students and staff to work on their academics and research projects. A centralized server is available and operational 24x7 round the clock to provide internet services for institutional activities.

Some of the IT Infrastructural facilities in the campus are:

- All the departments are equipped with LCD projectors with audiovisual systems, printers, scanners, and upgraded with the latest software tools to promote ICT infrastructure.

- The administrative block, departments, and laboratories of the institution are connected with Local Area Network (LAN) and Wi-Fi facility.

- The institution has IT infrastructure enabled seminar halls and each department has separate e – classrooms with smart boards to foster a better teaching-learning experience.

File Description	Document
Upload any additional information	[View Document](#)
Paste link for additional information	[View Document](#)

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

Response: 2.63

File Description	Document
Upload any additional information	[View Document](#)
Student - computer ratio	[View Document](#)

4.3.3 Bandwidth of internet connection in the Institution.
<5 MBPS

5 MBPS - 20 MBPS

20 MBPS - 35 MBPS

35 MBPS - 50 MBPS

Response: ?50 MBPS

File Description	Document
Upload any additional information	[View Document](#)
Details of available bandwidth of internet connection in the Institution	[View Document](#)

4.3.4 Institution has the following Facilities for e-content development

   1. **Media centre**
   2. **Audio visual centre**
   3. **Lecture Capturing System(LCS)**
   4. **Mixing equipments and softwares for editing**

E. None of the above

D. 1 of the above

C. 2 of the above

B. 3 of the above

Response: A. All of the above

File Description	Document
Upload Additional information	[View Document](#)
Institutional data in prescribed format	[View Document](#)
Link for Additional information	[View Document](#)

4.4 Maintenance of Campus Infrastructure

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

Response: 73.47

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
419.85	411.67	388.8	387.1	364.59

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

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

Response:

Swarnandhra College of Engineering and Technology (SCET) has a Maintenance Management System that is subdivided as Physical, Academic and Support facilities.

The institution made a provision in the budget for the maintenance of its physical and academic support facilities. Routine maintenance of the infrastructure facilities is carried out by the supervision of the Estate

Officer and Superintendent.

Class Rooms:

- Use of non-dust chalks.
- Daily sweeping of classrooms
- Wet cloth cleaning of benches (at least twice a week).
- Blackboard cleaning (with a wet cloth daily).
- Common dust bins are provided at various locations on each floor and in every classroom.

Laboratories - Maintenance & Utilization:

A preventive maintenance plan is followed in laboratories. Periodical checkups and calibration of equipment in all laboratories often take place. The repairs and servicing of the equipment is done by the Lab technicians and concerned technical persons under the supervision of the lab in-charge. Stock verification is conducted in all laboratories every year. Provision for maintenance is provided in the Annual budget of the institution.

Library:

The institution has a central library along with departmental libraries. The maintenance of the library includes shelving, shifting, sorting, binding, searching for missing items, preservation and making sure the stacks are presentable and organized. Verification of books and replacing/ordering new books are done once in every six months.

Sports Activities:

Students are well encouraged to participate in extracurricular activities, sports, and games. The institution has excellent infrastructure for various sports and games, viz., Cricket, Football, Table Tennis, Badminton, Shuttle, Volley Ball, Athletics, etc. Physical director monitors the sports and games equipment. A proper record is maintained in the department for the physical count of sports material for future use.

Hostels:

The institution has a separate hostel facility for boys and girls along with a gymnasium. The superintendent and hostel wardens look after the maintenance of the hostels and mess assuring the quality and hygiene in the surroundings. Systematic and well-organized management principles are applied for the students to maintain time, discipline in the hostels.

Computer Systems Maintenance:

There is a group of system maintenance committee, headed by a senior faculty, with a mandate to recommend to the management the need for upgrading existing machines, replacing the obsolete ones with new ones, maintenance of the networking system, purchase of accessories such as switches, routers, printers, AMC, etc.

Internet and Wi-Fi:

System administrator and a team of technicians look after the maintenance of daily bandwidth, usage, bandwidth allocation, and sharing.

File Description	Document
Paste 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 last five years

Response: 69.77

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

2018-19	2017-18	2016-17	2015-16	2014-15
2155	1594	1942	2061	1198

File Description	Document
upload self attested letter with the list of students sanctioned scholarships	[View Document]
Institutional data in prescribed format	[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 and non-government agencies during the last five years

Response: 13.64

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

2018-19	2017-18	2016-17	2015-16	2014-15
629	412	369	260	111

File Description	Document
Number of students benefited by scholarships and freeships besides government schemes in last 5 years	[View Document]
Institutional data in prescribed format	[View Document]

5.1.3 Following Capacity development and skills enhancement initiatives are taken by the institution 1. Soft skills 2. Language and communication skills 3. Life skills (Yoga, physical fitness, health and hygiene) 4. Awareness of trends in technology

E. None of the above

D. 1 of the above

C. 2 of the above

B. 3 of the above

Response: A. All of the above

File Description	Document
Details of capability enhancement and development schemes	[View Document](#)
Any additional information	[View Document](#)
Link to Institutional website	[View Document](#)

5.1.4 Average percentage of students benefited by career counseling and guidance for competitive examinations offered by the Institution during the last five years.

Response: 33.71

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

2018-19	2017-18	2016-17	2015-16	2014-15
852	936	612	1150	767

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

5.1.5 The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases 1. Implementation of guidelines of statutory/regulatory bodies 2. Organisation wide awareness and undertakings on policies with zero tolerance

3. Mechanisms for submission of online/offline students' grievances

4. Timely redressal of the grievances through appropriate committees

E. None of the above

D. 1 of the above

C. 2 of the above

B. 3 of the above

Response: A. All of the above

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

5.2 Student Progression

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

Response: 55.65

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
520	350	371	497	336

File Description	Document
Upload any additional information	[View Document](#)
Self attested list of students placed	[View Document](#)
Details of student placement during the last five years	[View Document](#)

5.2.2 Percentage of recently graduated students who have progressed to higher education (previous graduating batch).

Response: 2.05

5.2.2.1 **Number of outgoing students progressing to higher education.**

Response: 16

File Description	Document
Upload supporting data for student/alumni	[View 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: IIT/JAM/ NET/SLET/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations, etc.)

Response: 22.45

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

2018-19	2017-18	2016-17	2015-16	2014-15
14	43	26	15	12

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

2018-19	2017-18	2016-17	2015-16	2014-15
103	103	87	99	101

File Description	Document
Upload supporting data for student/alumni	[View Document](#)
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 university/state/national / international level (award for a team event should be counted as one) during the last five years.

Response: 30

5.3.1.1 **Number of awards/medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (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
06	06	05	05	08

File Description	Document
Number of awards/medals for outstanding performance in sports/ cultural activities at inter-university / state / 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:

STUDENT COUNCIL

The Institution has a student council for which students are selected depending on their Academic Performance. Student council is a central body that monitors academic, co-curricular and cultural events like the activities of the Vivekananda study circle, the Bhuvanavijayam club, NSS and all the other events organized in and around the institution campus.

MESS & CANTEEN COMMITTEE

Mess & Canteen Advisory Committee monitor food quality, sanitation or inconvenience faced by students inside the mess & canteen is being sorted out.

HOSTEL COMMITTEE

The boys and girls hostels have a committee of nine members. The members including one management member, four wardens (2 Girls hostel wardens & 2 Boys hostel Wardens) & four students (2 boys & 2 Girls) representatives meet to ensure the proper functioning of the hostels and to discuss problems inside the hostel.

SPORTS ADVISORY COMMITTEE

Members of the committee, including student representatives, take up agenda items like existing facilities, forthcoming tournaments, scheduling of practice timings to various departments, coaching facilities, etc.

LIBRARY ADVISORY COMMITTEE

The Library Advisory Committee members meet once every month to discuss the availability of books, periodicals and journals, and the procurement of new titles. Students from all branches are made members. The opinion of the students on matters related to the adequacy and availability of books, e-resources, new titles and other facilities are considered.

TRANSPORT ADVISORY COMMITTEE

The Transport Advisory Committee including Transport In-charge and student representatives to sort out the grievances like inadequacy of seating, timings, the extension of service, providing additional stops, etc.

ANTI RAGGING COMMITTEE

The anti-ragging committee includes D.S.P, C.I, newspaper reporter, all department heads, two management members, physical director, transport in-charge, boys and girls hostel wardens, local prominent people (Advocate, 2 Parents). If any student faces a problem with the ragging, he/she will intimate to this committee and a complaint will be filed and necessary action is taken.

ALUMNI COMMITTEE

The institution has an alumni committee, which conducts alumni meets with graduate students. Alumni meet maintains a relationship with each other and review previous meeting activities, interacts with the alumni members, and considers the feedback and suggestions for the development of the institution. Alumni members are involved in the Board of Studies.

INTERNAL QUALITY ASSURANCE CELL (IQAC)

The institution established an Internal Quality Assurance Cell (IQAC). IQAC works under the chairmanship of the head of the institution and convener with faculty members from each department. Students are also members of institutional IQAC. Student members consider suggestions and feedback for IQAC.

File Description	Document
Upload any additional information	[View Document](#)
Paste link for Additional Information	[View Document](#)

5.3.3 Average number of sports and cultural events / competitions organised by the institution per year

Response: 9.4

5.3.3.1 **Number of sports and cultural events / competitions organised by the institution year - wise during the last five years.**

2018-19	2017-18	2016-17	2015-16	2014-15
10	08	16	06	07

File Description	Document
Upload any additional information	[View Document](#)
Report of the event	[View Document](#)
Number of sports and cultural events / competitions organised per year	[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 other support services.

Response:

The alumni association is one of the stakeholders of the Swarnandhra College of Engineering and Technology (SCET). They contribute immensely to the development of the college in multiple dimensions. SCET conducts an Alumni meeting every year.

SCET Alumni association is contributing to the college financially, academically in exploring new opportunities. The funds contributed by the Alumni are utilized towards the development of labs, medals, awards to students, other amenities, etc. Alumni have also contributed immensely as members of BOS, delivering Guest lectures, offering Intern-ships, assisting in Placement, organizing Industry visits, and also assisting students to get admissions into reputed Universities Abroad.

The Alumni have provided mentoring services to the students by holding one to one interaction with the students. They have become influential in making the students understand the industry-institute gap and also the way to plan and shape up one's career in the right direction. SCET Alumni have been influential in making the students to understand various business opportunities and providing all the support required for preparing them to become entrepreneurs and to know the current dynamics of the industry.

Alumni profiles and their growth verticals are being showcased to the present students for guidance. Alumni are influential in introducing the outcome-based education in the University and nurturing professionalism and Industry-readiness among the students.

Alumni are invited to participate in their respective BOS. Alumni contributed extensively in bridging the

gap between industry requirements and academics by reviewing and restructuring the syllabi. They recommended moderating the delivery of Academics such as experiential learning. Their contribution leads to a change from faculty-centered learning to student-centered learning.

Alumni have been deliberately concentrating on the industry-oriented research projects and undertaking consultancy services based on the expertise of the faculty and the kind of research labs supported by the college. The Alumni working at reputed organizations located globally are also helping the outgoing students in their internships. Alumni are providing necessary support and encouragement to develop quality standards that could be used to enhance and raise the quality of delivery of the educational system.

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

5.4.2 Alumni financial contribution during the last five years (in INR).
E. <2 Lakhs

D. 2 Lakhs - 5 Lakhs

C. 5 Lakhs - 10 Lakhs

B. 10 Lakhs - 15 Lakhs

Response: C. 5 Lakhs - 10 Lakhs

File Description	Document
Any additionla information	View Document
Link for 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:

The Vasista Educational Society, Narsapur, West Godavari District, Andhra Pradesh was established in 2000 by technocrats and architects. The society has initiated an institution by name "Swarnandhra College of Engineering & Technology" in 2001 to provide quality technical education to students hailing from both rural and urban areas to evolve them as dynamic professionals.

Vision

To produce global competent, ethical and dynamic professionals by creating Centre of Excellence in Technical Education for societal empowerment

Mission

- **To provide quality education with knowledge and skills for rural and urban students.**
- **To collaborate the industries with academia for empowering the students to meet global standards.**
- **To induce highly ethical entrepreneurship in young minds with good leadership quality for the society.**
- **To enhance the institution in Research and Development by human intellectual capability.**

Governance:

Swarnandhra College of Engineering and Technology has listed its governance plan by keeping in view of the mentioned above vision and mission. The institution strives to achieve its vision by working through its mission with key factors such as good governance, quality academic processes, and infrastructure. Good governance brings the best out of the management, employees, parents, students, and alumni. To have better governance, every stakeholder is allowed to contribute through various administrative and academic committees. Good governance requires dissemination of information to students, faculty, parents, and potential employers on all aspects of institutional activity related to academic performance and management.

The institution has an Academic Council, chaired by the principal, comprising members from affiliating university, industry, eminent people in academia, and heads of all the departments. It provides expert advice in formulating academic policies, regulations, goals and objectives to promote career opportunities of the students.

Board of Studies (BoS) is formulated in each department by the external subject experts from affiliating university, other premier institutions, industry experts, alumni, and experienced faculty members in the department with HOD as chairman. Its objective is to design and envision curricular development that can keep up with changing industry needs, research and cutting edge technologies by giving due emphasis to

the feedback of the stakeholders.

Internal Quality Assurance Cell (IQAC) has been established as per the guidelines with a view to promote quality academic standards. It helps in effective and efficient usage of the resources available and to safeguard the assets of the institution. The IQAC conducts a self-review to examine the impact of its governance from time to time.

Perspective Plan: The perspective plan for the next five years includes continuing the status of accreditations, permanent affiliation to JNTUK, UGC autonomy, the establishment of research & innovation centers, incubation centers, centre of excellence, consultancy, startups and collaborations for higher studies and placements.

Participation of the teachers: Through participative management system, the faculty are involved in various decision making bodies like governing body, academic council, the board of studies, institute advisory committee, disciplinary committee, etc. of the institution.

File Description	Document
Any additional information	[View Document](#)
Link for additional information	[View Document](#)

6.1.2 The effective leadership is reflected in various institutional practices such as decentralization and participative management.

Response:

The management is highly committed and dedicated to the service of catering to the contemporary requirements to impart quality education. The management gives freedom to the principai to fulfil the vision and mission of the college. The management provides the required infrastructure for the proper functioning of the institution. The responsibilities of each faculty member are communicated through principal and HODs in regular staff meetings. The management, principal and faculty of the college are committed towards strategic work, its implementation and maintain perfect documentation, and extend further efforts to continue the effectiveness of the plans through a Quality Management System. Management is committed to ensure conformity and compliance with standards. The institution follows decentralization and participative management which promotes quality in education system.

The case study of the preparation of Academic Planner

The institution functions with the method of decentralized governance system. The Head of the Department (HoD) has the authority to decide the activities and delegating responsibilities to the staff members. The department decides on the timetable, subject allocation, purchase and maintenance of equipment and consumables, organizing conferences, symposia, guest lectures, and workshops and recommends necessary industrial visits, in-plant training, internships, and MoUs.

The institution is functioning effectively with the culture of participative management which enables the

faculty and students to give their opinion and suggestions for improvement. All the academic activities are decentralized and decisions are taken based on discussion and deliberations in the class committee meetings, department meetings, faculty meetings, and HoDs' meetings with Principal. The Principal coordinates through the Internal Quality Assurance Cell (IQAC) with the departments, administration, and management. Participative management provides extensive scope for having collaboration among the departments and ensures the quality of planning and implementation of all the activities in the institution uniformly and as a team.

Every year Academic Planner is prepared by IQAC, COE & HOD's the closure of the previous academic year. Principal will convene the HODs' meeting. The schedule of the following will be discussed and finalized in accordance.

Preparation of the next academic year with Working days/test days/model exam days, Department activities, Guest Lectures, Industrial Visits, Internships, Placement Training, Audit Days, FDPs / Workshops / Conferences, and all-day celebrations.

The Principal submits the final schedule to Academic Council for approval. All committees follow the same. Nearly 90% of the events as per schedule are conducted every year. The prior preparation of an academic planner helps in identifying resource persons for different activities mentioned and enables the management to invite celebrities. Further, student activities are designed as and when the academic planner provides the available time. Smart classrooms, Seminar Halls, Activity hall, and Separate Registers are available for booking the venues appropriate to the events.

File Description	Document
Link for strategic plan and deployment documents on the website	[View Document](#)
Link for additional information	[View Document](#)

6.2 Strategy Development and Deployment

6.2.1 The institutional Strategic / Perspective plan is effectively deployed

Response:

The Institution has formally stated quality policy and it is developed, driven, deployed and reviewed. All the courses are approved by All India Council of Technical Education (AICTE), New Delhi. The institution is permanently affiliated to Jawaharlal Nehru Technological University Kakinada, Kakinada. The department of ECE has been accredited thrice by the NBA. The institution has accredited by NAAC with 'A' grade at 3.32 CGPA in 2013 and attained the status of UGC autonomy in 2014. There is a special emphasis on **Outcome Based Education (OBE) and Experiential Learning from 2014 onwards.** The IQAC takes into account the vision and mission and several other aspects of the institution and formulates processes to ensure quality outcomes.

The prominent resources that the institution currently has

- Well qualified and experienced faculty members
- State-of-the art Central Library
- Good infrastructure facilities with well-equipped laboratories and computer centres in every department
- Advanced Nano Research Centre, Big Data Analytics lab and 3-D printing Lab Training and Placement Cell

Perspective Plan for the development of college:

- Strengthen industry-institute interaction.
- Improvement of consultancy services.
- Increasing value-added certification courses.
- To be ranked in top 150 at prestigious NIRF Ranking.
- Extension of Academic Autonomy and continuation of accreditations.
- Getting the status of Deemed- to- be- University.
- Establishment of new innovation and incubation centers.
- Centre of Excellence.
- Creating an intense research ambiance in terms of establishing recognised R&D centres in all the departments.

The following major deployments have been taken place after the accreditation

- Standardizing the OBE based teaching-learning processes
- The department of ECE has been accredited third time by NBA.
- Establishment of Advanced Labs like 3D printing, IoT, ARC Lab, etc..
- Functional MOUs.
- Increase of intake in B.Tech-ECE, CSE and MECH. branches.
- Strengthen the alumni association.
- Recognised as NPTEL Local Chapter.
- Adoption of Choice Based Credit System (CBCS) in curriculum
- Recognized research centre for Mechanical Engineering department by JNTUK, Kakinada.

File Description	Document
Link for Strategic Plan and deployment documents on the website	[View Document](#)
Link for additional information	[View Document](#)

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

Response:

The college has a well-framed internal organizational structure for decision making processes and

developed efficient internal coordinating and monitoring mechanisms. In cognizance with the educational needs and demands of the nation in general and beneficiaries of the college in particular, the goals are set through collaborative and collective efforts of various components of the institution. Thereafter, the responsibilities are assigned to individual faculty and departments. The governing body is the apex body, which defines academic and administrative policies. It discusses and approves the annual budget. Minutes of the meetings are recorded and are available to the staff and students. The governing body communicates decisions to the faculty and staff through the principal. Academic Council, chaired by the Principal, is a statutory body, which approves curriculum, examination schemes with the approval of governing body. BoS of each department works under the guidance of the HOD as chairman. Faculty members and experts of the BoS frame the curriculum. Other committees such as Institution Advisory Committee, College Academic Committee, Grievances Redressal Cell, Finance Committee, IQAC, Library Committee, Placement Committee, Anti-ragging committee, etc. work under the guidance of the head of the institution. The effectiveness of the organizational structure is monitored through feedback from stakeholders.

The powers and the functions of each authority are well defined to ensure administrative decentralization. The proposals are generated at the department level, and after careful consideration and deliberations, the proposals prepared by the head of the departments are submitted to the Secretary & Correspondent through Principal. The proposals are finalized in the management committee meeting. The decisions of the governing body are implemented through the principal by various departments and other sections (Administrative, Academic and Finance) without any interference or hindrance. The governing body frames and approves the service rules, recruitment and promotional policies.

Finally, all the administrative, academic, and financial activities are reviewed by the governing body to ensure administrative and academic accountability of the institution through IQAC. The resources of the college, both intellectual and infrastructural, are readily made available for the head of the department and the teachers concerned to carry out the programme successfully. The college has a democratic set-up, where each unit is given the freedom to innovate and plan its perspectives of development, yet it operates through a structured organization for disciplined and smooth functioning of the system. The line of hierarchy is maintained and the code of conduct is implemented to bring harmony and unity.

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

E. None of the above

D. 1 of the above

C. 2 of the above

B. 3 of the above

Response: A. All of the above

File Description	Document
Screen shots of user interfaces	View Document
Institutional data in prescribed format	View Document
ERP (Enterprise Resource Planning) Document	View Document
Any additional information	View Document
Link for additional information	View Document

6.3 Faculty Empowerment Strategies

6.3.1 The institution has effective welfare measures for teaching and non-teaching staff and avenues for career development/ progression

Response:

Swarnandhra College of Engineering Technology offers various schemes to all the employees with the motivation to promote efficiency and efficacy. Welfare measures for teaching and non- teaching members are not only for the development of staff but also for the organization's development.

Following are the welfare measures provided to teaching and non-teaching staff by the institution:

Employees Provident Fund as per PF rules

- Keeping in view the future safety of employees, the institution contributes a specific amount towards the provident fund of an employee as per PF rules.

Group Insurance for staff members

- The college offers affordable group insurance to all employees that is uniform in nature, offering the same benefits.

Maternity Leave

- A pregnant woman employee in our college is entitled to avail a maximum of 90 days full paid maternity leave. The employees will be normally paid on the same date as their salary would be paid.

Fee concession policy to staff children

- This policy aims to promote the education of wards of the staff. Tuition fee concession will be given to the wards of staff who are studying in this institution.

Encashment of Earned Leaves

- The employee in the institution is eligible to avail of ten earned leaves after completion of every year. These earned leaves are accumulated in the employees' account and can be encashed as per the institute service rules.

Fee concession for Bus Transportation

- Fee concession scheme is being implemented for the staff traveling in college buses. The scheme applies to all teaching and non-teaching staff.

Subsidized food facility

- The institution offers a subsidized food facility to the staff with a reasonable charge that covers the cost of food, its preparation, and service.

Subsidized accommodation

- Subsidized accommodation is provided to both teaching and non-teaching staff of the institution in the hostels.

In addition to the above following are the welfare schemes available for the Teaching staff

Support to staff for higher education/research

- Sponsorship is provided to the faculty members to pursue research degrees and leave will be granted to pursue research, to ensure and encourage the faculty in knowledge up-gradation.

Support to staff for attending workshops /conferences

- Faculty members are encouraged to participate in Conferences/Workshops to enhance their quality in academics and to help pursue their research by giving the sponsorships from the institution.

Awards

- Cash awards are given to faculty in recognition to outstanding contributions in paper publications in reputed journals

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

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

Response: 23.91

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
73	50	38	50	24

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

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

Response: 15.4

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

2018-19	2017-18	2016-17	2015-16	2014-15
17	14	22	16	8

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

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

Induction Programmes, Refresher Course, Short Term Course).

Response: 44.84

6.3.4.1 **Total number of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP) (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course) year-wise during the last five years.**

2018-19	2017-18	2016-17	2015-16	2014-15
172	91	80	64	38

File Description	Document
IQAC report summary	[View Document](#)
Institutional data in prescribed format	[View Document](#)
Link for additional information	[View Document](#)

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Response:

The Institution has established a mechanism for conducting internal and external audits on financial transactions every year to ensure financial compliance. Internal audit is conducted half-yearly by the internal financial committee of the institution. The committee thoroughly verifies the income and expenditure details, and the compliance report of internal audit is submitted to the management of the institution through the principal. The external audit is conducted once in every year by an external agency.

The mechanisms used to monitor the effective and efficient use of financial resources are as below:

- Before the commencement of every financial year, the principal submits a proposal on budget allocation, by considering the recommendations made by the heads of all the departments, to the management
- College budget includes recurring expenses such as salary, electricity, internet charges, maintenance cost, stationery, other consumable charges etc., and non – recurring expenses like lab equipment purchases, furniture and other development expenses.
- The accounts department will monitor the expenses as per the budget allocated by the management.
- The depreciation costs of various things purchased in the preceding years are also worked out.

Process of the internal audit:

An internal financial committee audits all vouchers on half yearly basis. The expenses incurred under different heads are thoroughly checked by verifying the bills and vouchers. If any discrepancy is found, the

same is brought to the notice of the principal. The same process is being followed for the last five years.

Process of the external audit:

The accounts of the college are audited by chartered accountant regularly as per the government rules. The auditor ensures that all payments are duly authorized after the audit, the report is sent to the management for review. Any queries, in the process of an audit would be attended immediately along with the supporting documents within the prescribed time limits. The institution did not come across any major audit objection during the preceding years.

All these mechanisms exhibit the transparency being maintained in financial matters and adherence to financial discipline to avoid defalcation of funds or properties of the institution at all levels. The audited statement is duly signed by the authorities of the management and chartered accountant.

The audited income and expenditure statements of the institution for the last five financial years have been attached.

File Description	Document
Any additional information	[View Document](#)
Link for additional information	[View Document](#)

6.4.2 Funds / Grants received from non-government bodies, individuals, philanthropists during the last five years for development and maintenance of infrastructure (not covered under Criteria III and V) (INR in Lakhs).

Response: 3.25

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

2018-19	2017-18	2016-17	2015-16	2014-15
0.50	0.45	0.15	1.65	0.50

File Description	Document
Institutional data in prescribed format	[View Document](#)
Link for additional information	[View Document](#)

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

Response:

The institution is a self-financed institution, where the funds are generated through tuition fees, admission fees, special fees, non-refundable caution deposits and accreditation fees paid by the students. Additional funding is obtained from government funding agencies like AICTE, UGC, DST, etc., through various schemes like MODROBS and research promotion schemes. These funds are utilized for research and laboratory development. The institution has a well-defined mechanism to monitor the effective and efficient utilization of available financial resources for the development of the academic processes and infrastructure development.

1. Institutional budget is prepared by the Principal every year taking into consideration of recurring and non-recurring expenditures.
2. Accordingly, all the administrative and academic heads are requested to submit the budget required for the subsequent financial year. Along with this all coordinators of different cells viz., R & D Cell, Exam Cell, T & P Cell, NSS Cell, etc. are instructed to submit their budget to Principal.
3. All the major financial decisions are taken by the Management and Governing Body (GB).

Utilization of funds:

1. Institution adheres to the Utilization of budget approved for academic expenses and administrative expenses by management.
2. After final approval of the budget, the purchasing process is initiated by the purchase committee, which includes all head of departments and account officer, accordingly, the quotations called and after the negotiations purchase orders are placed.
3. The payments are released after the delivery of the respective goods. It is done as per the terms and conditions mentioned in the purchase order.
4. All transactions have transparency through bills and vouchers. The bill payments are passed after testing and verification of items. Authorized persons only operates the transaction through the bank.
5. The entire process of the procurement of the material is monitored by the purchase committee, principal and the accounts department.
6. Internal and external financial audits are conducted in every financial year to verify the compliance.

File Description	Document
Any additional information	[View Document]()
Link for additional information	[View Document]()

6.5 Internal Quality Assurance System

6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes visible in terms of – Incremental improvements made for the preceding five years with regard to quality (in case of first cycle) Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives (second and subsequent cycles)

Response:

In pursuance of the National Action Plan of the National Assessment and Accreditation Council (NAAC), Bangalore, for performance evaluation, assessment and accreditation and quality up-gradation of institutions of higher education, it is essential that an Internal Quality Assurance Cell (IQAC) as a quality sustenance measure has to be established. Hence, Swarnandhra College of Engineering and Technology (SCET) has established the IQAC cell in the year 2013. Since quality enhancement is a continuous process, the IQAC becomes a part of the institution and works towards realizing the goals of quality enhancement and sustenance. The prime task of the IQAC is to develop a system for conscious, consistent and catalytic improvement in the performance of the institution. The IQAC will make a significant and meaningful contribution to the post-accreditation phase of SCET. The IQAC channelizes the efforts and takes appropriate measures to address the issues raised in the earlier cycle and measures to be taken by the institution to reach its ultimate goal of academic excellence.

Objectives Of IQAC

- To develop a quality system for conscious, consistent and programmed action to improve the academic and administrative performance of the institution.
- To promote measures for driving institutional functioning towards quality enhancement and institutionalization of best practices.

Strategies of IQAC

- Ensuring timely, efficient and progressive performance of academic, administrative and financial tasks.
- The relevance and quality of academic and research programmes.
- Equitable access to and affordability of academic programmes for various sections of society.
- Optimization and integration of modern methods of teaching and learning.
- The credibility of evaluation procedures.
- Ensuring the adequacy, maintenance, and functioning of the support structure and services.
- Research sharing and networking with other institutions in India and abroad.

Functions of IQAC

Some of the functions expected from IQAC are:

- Development and application of quality benchmarks/parameters for various academic and administrative activities of the institution.
- Facilitating the creation of a learner-centric environment conducive to quality education and faculty maturation to adopt the required knowledge and technology for participatory teaching and learning process.
- Arrangement for feedback response from students, parents and other stakeholders on quality-related institutional processes.
- Dissemination of information on various quality parameters of higher education.
- Organization of inter and intra institutional workshops, seminars on quality related themes and promotion of quality circles.
- Documentation of the various programmes/activities leading to quality improvement.
- Acting as a nodal agency of the Institution for coordinating quality-related activities, including adoption and dissemination of best practices.
- Development and maintenance of institutional database through MIS for the purpose of maintaining

/enhancing the institutional quality.
- Development of Quality Culture in the institution.
- Preparation of the Annual Quality Assurance Report (AQAR) as per guidelines and parameters of NAAC, to be submitted to NAA

IQAC has contributed significantly to institutionalizing the quality assurance strategies and processes, following are the results of IQAC initiatives for the past five years:

- Energy Audit
- Green Audit
- Environmental Audit
- Academic and Adiministrative Audit
- ISO Certification
- Train the trainers to select the faculty members to take up consultancy and corporate training

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 and recorded the incremental improvement in various activities (For first cycle - Incremental improvements made for the preceding five years with regard to quality For second and subsequent cycles - Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives)

Response:

IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes:

- The IQAC organizes regular academic audits to ensure effective implementation of teaching learning process and maintenance of course files.
- Verification of internal test analysis, question papers.
- Arrangement of special classes for weak students during evening hours.
- Identifying the new processes/delivery method and recommending the same for improving the quality.
- Analyzing the deviations from the benchmarks and reporting.
- Feedback from the stakeholders (students, alumni, industry experts, research organizations and parents).
- Encouraging faculty for online certification Courses (NPTEL, MOOCS, Etc.)
- Faculty Development Programs and Skill Development Training Programs are organized every year.

Reviews and Implementations of Teaching-Learning Reforms through IQAC:

- Guest lectures on advanced topics by the eminent academicians and industry experts.
- Practice of emerging technologies through mini-projects and term papers.
- Faculty Development through workshops, orientation programs, seminars and conferences.

IQAC has contributed significantly to institutionalizing the quality assurance strategies and processes, following are the results of IQAC initiatives for the past five years:

- Autonomous status by UGC
- Incubation centre for IOT established in our college premises.
- Entrepreneurship Cell started for motivating young entrepreneurs from the rural community
- The campus-wide integrated information system was incorporated in (i) Administration (ii) Finance and Accounts (iii) Students Admission and Supports (iv) Examinations
- Smart classrooms were installed in all the departments
- Language lab for communication started for students and staff members as well as added in our curriculum.
- Yoga and martial arts programmes conducted frequently for students and staff members
- Publications of faculty and students are provided in the Library
- Value added courses

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

6.5.3 Quality assurance initiatives of the institution include:

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

None of the above

1 of the above

2 of the above

3 of the above

Response: All of the above

File Description	Document
Upload e-copies of the accreditations and certifications	[View Document](#)
Institutional data in prescribed format	[View Document](#)
Any additional information	[View Document](#)
Paste web link of Annual reports of Institution	[View Document](#)
Link for additional information	[View Document](#)

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

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

Response:

The institution strongly feels that gender equity is not a matter for students alone but also for all sections like faculty, support staff, and administration. Gender equity means, according to their individual needs, the fairness of treatment for women and men, this is interlinked with women empowerment. Our institution has separate 'women grievance cell' headed by senior female professor, representatives from all departments, to take necessary actions about women's problems within the institution. In our institute, we provide equal opportunity to both male and female students in all curricular and co-curricular activities conducted within the campus and outside the campus.

Safety and Security

- The Institution follows a 33.3% reservation for girls as per the Government of Andhra Pradesh norms.
- 24 security personals provide security inside the campus.
- Three woman wardens are at the girls' hostel round the clock.
- The college woman's forum conducts frequent health awareness programs.
- Women Grievance Cell provides a convenient opportunity for girl students to raise the problems of harassment, preserving anonymity events.
- On special occasions like college fest, placement drives, etc. special transport for girl students is provided.
- When they are detained beyond 8 PM girl students are escorted to the door if parents do not turn up at pickup points.
- There is a separate dining hall for day scholar girls students, independent sports facilities.
- Closed-circuit camera (C.C.C.) surveillance is in the institution.

Counseling: The institution has arranged individual advice for students

1. Counseling related to academics

2. Counseling related to career

3. Information about behavior and attitude

One faculty member allotted as a counselor for 15 students. The faculty calls the parent and discusses the academic progress/status of the ward. Students should meet the counselor once a week. In the case of slow learners and differently-abled students, close monitoring by the counselor in consultation with the respective subject faculty.

The performance of the students enhanced by individual training sessions, group discussions, and interview skills are conducted by the Training & Placement Department, which is headed by a female faculty in our

institute.

Specialized training in technical subjects is provided for the students to improve the chances of their employability and job readiness.

We monitor the identification of depression and abnormal behavior patterns in the student's behavior frequently—such students taken to the counseling cells for individual counseling by a psychiatrist.

The girls club has a mission to empower women and girls in academia through imparting educational, awareness training programs to strengthen them towards leadership and self- motivation and also competent in their career and life.

Common rooms: There are three ladies waiting halls as common rooms in the institution. The common rooms are possessed chairs, tables, adequately furnished with electric and sanitary fittings.

As part of N.S.S. activities, free multi-specialty medical camps organized in neighboring villages, which help transform rural women in building awareness about health, hygiene, the importance of child education.

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

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

E. None of the above

D. 1 of the above

C. 2 of the above

B. 3 of the above

Response: A. 4 or All of the above

File Description	Document
Geotagged Photographs	[View Document]()
Any other relevant information	[View Document]()

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

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

Response:

The institution is very conscious of generating less waste and recycling it by passing it through a system that enables the used material to be reused ensuring that less natural resources are consumed.

Solid waste management:

The Institution is actively involved in the CLEAN-AND-GREEN campaign of national fame, a subject in which it had already taken keen interest from the year of inception in 2001. The trees that line several avenues on the campus are 16-17 years old and maintained with great care. The waste is generated by all sorts of routine activities carried out in the institution that includes paper, plastics, glass, metals, food waste etc. The waste is segregated at each level at the source itself. The administrative supervisor in each block ensures that the waste in each floor is collected at designated time intervals. The floor safai workers in each floor collect and segregate the waste in dustbins provided on each floor. The floor dustbins are emptied into movable containers/dustbins provided for each block and are taken to the dumping yard within the institution. The vendor collects the waste from the dumpsite of the institution, segregates them, and disposes of them at the landfill site authorized by the municipality.

Segregated food waste, vegetable peels etc are collected from the canteens on the campus and is composted. Similarly, the garden waste, dry leaves are also composted. Recyclable wastes like pet bottles, cartons and stationery are collected which is periodically sold to vendors for recycling. There is no particular biomedical waste generated within the campus hence no biomedical waste management. No radioactive materials are generated by the institution.

Liquid waste management:

Liquid waste generated in the campus is of two types:

1. Sewage waste

2. Laboratory, bathroom/washroom, and cafeteria effluent waste

The water is used for horticulture and gardening. The proper drainage system is arranged for all the buildings of the campus. The chemicals from laboratories are well neutralized before sending into drains.

Hazardous Lab Waste (E-waste):

All electrical waste such as tube lights, bulbs, old switches, and wires are stored separately in a shed. The housekeeping team has been trained in handling all categories of waste. An effective system of segregation, collection, storage, and disposal of waste has been practiced in the institution. The Institution has also taken the following steps to reduce the generation of waste. Steel plates are used instead of paper

and plastic plates, steel spoons replace the plastic spoons in the canteen, steel tumblers in place of paper cups. Awareness programmes about waste management are conducted on the campus for students, faculty and housekeeping staff to promote environmentally friendly practices as part of "Swachh Campus" inspired by "Swachh Bharat".

Flip flops, memory chips, motherboard, compact discs, cartridges etc generated by computers, radio, TV, phones, printers, fax and photocopy machines are recycled properly. The e-waste generated from hardware which cannot be reused or recycled is being disposed of centrally to vendors. In some cases, the used computers generously donated to nearby primary schools.

File Description	Document
Geotagged photographs of the facilities	View Document
Any other relevant information	View Document

7.1.4 Water conservation facilities available in the Institution:

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

E. None of the above

D.1 of the above

C. 2 of the above

B. 3 of the above

Response: A. Any 4 or all of the above

File Description	Document
Geotagged photographs / videos of the facilities	View Document
Link for any additional information	View Document

7.1.5 Green campus initiatives include:

1. **Restricted entry of automobiles**
2. **Use of Bicycles/ Battery powered vehicles**
3. **Pedestrian Friendly pathways**
4. **Ban on use of Plastic**

5.landscaping with trees and plants

E. None of the above

D. 1 of the above

C. 2 of the above

B. 3 of the above

Response: Any 4 or All of the above

File Description	Document
Various policy documents / decisions circulated for implementation	[View Document](#)
Geotagged photos / videos of the facilities	[View Document](#)
Any other relevant documents	[View Document](#)

7.1.6 Quality audits on environment and energy regularly undertaken by the Institution

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

E. None of the above

D.1 of the above

C. 2 of the above

B. 3 of the above

Response: A. Any 4 or all of the above

File Description	Document
Reports on environment and energy audits submitted by the auditing agency	[View Document](#)
Certification by the auditing agency	[View Document](#)
Certificates of the awards received	[View Document](#)

7.1.7 The Institution has disabled-friendly, barrier free environment

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

E. None of the above

D.1 of the above

C. 2 of the above

B. 3 of the above

Response: A. Any 4 or all of the above

File Description	Document
Policy documents and information brochures on the support to be provided	[View Document](#)
Geotagged photographs / videos of the facilities	[View Document](#)
Any other relevant information	[View Document](#)

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

Response:

The institution is highly committed to promoting an inclusive environment towards tolerance and harmony. It initiates efforts in developing cultural, regional, linguistic, communal, socio-economic, and other diversities in our students as well as faculty. The institutional efforts/initiatives in the regard are as follows:

The anti-drug campaign by police personal, social workers to get the awareness of health and mental problems as well as punishments for carrying, consumption of drugs, etc. will be a point of discussion.

In 2014, the Government of India introduced **Rashtriya Ekta Diwas or National Unity Day** on 31st October intending to pay tribute to Sardar Vallabhbhai Patel on his birth anniversary. On this day, 'National unity pledge' is taken by all teaching, non-teaching members, including students.

A tribute was paid to Indian soldiers by faculty, students of our institution in expressing solidarity with the

families of soldiers on National police day.

Our institution was organizing medical camps in neighboring villages as a part of socio-economic diversities, and medicines given at free of cost, eye operations for older people also a part of this diversity.

The used computers, few furniture of reusable also donated to nearby primary schools.

To get good harmony with parents of the students of our institution annually gets to gather in the form of parent-teacher interaction was conducted.

In developing harmony and tolerance, students, along with few faculty members, celebrate Independence Day or republic day with Deaf &Dumb school children.

To become responsible citizens of the country, our institute organizes personality development programs by famous Yandamoori Veerndranath and others.

At our institution, to go with more tolerance and linguistic diversities among students and faculty specialized coaching by people like Dr.K.V.Subba Raju, Dr.K. Balaji Reddy, Rajesh Murthy organized.

At our institution, we have student-owned non-governmental organizations like AACHRANA, NEW CLOURS with the help of management, and staff students donate money and needy groceries to poor people and also blood donation programs running.

File Description	Document
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	[View Document](#)
Any other relevant information	[View Document](#)

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

Response:

The **Fundamental Rights**, **Directive Principles of State Policy** and **Fundamental Duties** are sections of the Constitution of India that prescribe the fundamental obligations of the State to its citizens and the duties and the rights of the citizens to the State. The Supreme Court has adopted the view of the Fundamental Rights and Directive Principles being complementary to each other, each supplementing the other's role in aiming at the same goal of establishing a welfare state through social revolution.

The Constitution Day (**National Law Day**), also known as "Samvidhan Divas," is celebrated in India on November 26 every year to commemorate the adoption of the Constitution of India. On November 26, 1949, the Constituent Assembly of India adopted the Constitution of India, and it came into effect on January 26, 1950. In our institution, we take the pledge to follow fundamental duties in our life. On this

day, the preamble of the constitution was read out by all students and staff.

National Voters' Day is celebrated on January 25 every year from the year 2011on wards, to encourage more young voters to take part in the political process. The Election Commission has decided to take up a vigorous exercise to identify all eligible voters attaining the age of 18 years as of January 1 every year. Such likely voters would be enrolled on time and handed over their Electoral Photo Identity Card (EPIC) on January 25 every year. This initiative expected to give the youth a sense of empowerment, pride, and inspire them to exercise their franchise.

The Road Safety Week (Second week of January every year) observance was initiated by the Ministry of Road Transport & Highways. From the year 201, production of promotional materials like cloth banners, safety posters, pocket guides, safety films, etc. to help its Members / Patrons to observe Road Safety Week effectively. At our institute, we took a rally in the nearby municipality with the help of NSS wing and distribute pamphlets to wear a helmet while driving and safety guidelines to prevent road accidents.

The Van Mahotsav (National Festival of Tree Planting) in India is held annually from July 1 to July 7 and is celebrated every year in the country in a bid to raise awareness about the importance of trees and encourage people to plant more of them. The festival finds mass participation of people, including government agencies, civic bodies, and educational institutions across the country, together every year to plant saplings. At our institution, we observe this week and distribute plant saplings to every student to plant it at their residence and adapt it until it is grown.

The National Education Day observed on November 11 from the year. The date has chosen to commemorate the birth anniversary of independent India's first education minister – Maulana Abul Kalam Azad. Our students go to nearby villages and spread the message of education to all as well as digitization importance.

File Description	Document
• Details of activities that inculcate values; necessary to render students in to responsible citizens	[View Document](#)
Any other relevant information	[View Document](#)

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

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

E. None of the above

D. 1 of the above

C. 2 of the above

B. 3 of the above

Response: A. All of the above

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

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

Response:

National Festivals are celebrated with enthusiasm. Our students are on a mission towards better India. They come together breaking the boundaries of religion and caste. Thoughts of great Indian personalities sowed into the young minds through the different programmes conducted on these days. Every year Swarnandhra College of Engineering and Technology organizes national and international commemorative days, events and festivals.

· **Independence Day** is annually celebrated on 15th August; on this day students organize flag hoisting ceremony. The air is filled with patriotic feelings that emit from various songs aired on the campus through a public addressing system. As the tricolour goes up a top in front of the central library building of our institution all the students salute with reverence and pride and sing the national anthem followed by the chief guest message.

· **Republic Day** honours the date on which the Constitution of India came into effect from 26 January 1950. The programme consists of patriotic songs sung by students and speeches eulogizing the great sacrifices made by our freedom fighters followed by the guest of honour's message.

· **Dr Mokshagundam visvesvaraya birthday (Engineer's day):** Every year on September 15 all the departments of our institution celebrates "Engineer's Day".

·**Dr *Sarvepalli Radhakrishnan birthday (*Teacher's Day)** is the day which is celebrated to honour the teachers. It is celebrated on 5th September in the memory of Dr Sarvepalli Radhakrishnan.

· **Gandhi Jayanthi** is a national festival celebrated to mark the occasion of the birthday of Mohandas Karamchand Gandhi.

·**Mathematics Day** is observed on December 22 every year. It is celebrated in order to honour the birth anniversary of the famous mathematician Sir Srinivasa Ramanujan.

- **International Women's Day** celebrations on March 8th every year are organized for girl students and female faculty. One famous woman intellectual will address the gathering emphasizing on different women related issues.
- **International day of yoga** is celebrated every year on 21st June, yoga guru from the nearby community will practice yoga with students and faculty and this is not on that day but it is a regular practice in our institution.
- **Sankranthi sambarallu** is one of the most important festivals of Andhra Pradesh. At our institution ever four years once we celebrate it with traditionally. The most important events are `Gangireddulu' (Act of OXE), `Gobbemmalu' (cow-dung pellets), Bhogi mantallu (Traditional fore camp), Riding on a bullock-cart, eating sugarcane, Ariselu, Pongal etc.

·   World Water Day is organized by the environmental club of our institution every year on 22nd March. The club prepares a slogan for every year like "Water can help fight climate change", "Everyone has a role to play", "Leaving no one behind".

- **International Mother Language Day** is a worldwide annual observance held on 21st February to promote awareness of linguistic and cultural diversity and to promote multilingualism. Mother Language Day is part of a broader initiative "to promote the preservation and protection of all languages used by peoples of the world" as adopted by the UN General Assembly.

File Description	Document
Geotagged photographs of some of the events	[View Document](#)
Annual report of the celebrations and commemorative events for the last five years	[View Document](#)

7.2 Best Practices

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

Response:

PRACTICE-I

Title of the Practice

Course Coordinator-Ship: An Effective Mechanism in Outcome Based Education

Objectives of the Practice

Outcome based education (**OBE**) is a student centred instruction that focuses on measuring student

performance i.e. outcomes. Outcomes include knowledge, skills and attitudes. The outcomes of the program to be evaluated though, input and output parameters are also important. To provide assurance that a college program meets the quality standards of the profession for which that program prepares its graduates. Though, the evaluation process includes many terminologies such as, Program Educational Objectives (**PEO),** Program Outcomes (**PO)** andCourse Outcomes (**CO),** different roles were considered to implement and execute the outcome based education process. Out of which Course Coordinators are an effective role for execution of activities under various modules of the program. Therefore, **Swarnandhra College of Engineering and Technology (SCET)** has been practicing course coordinator ship effectively to shift the focus of education from educator to learner with the following objectives:

- To set high academic content standards
- To design curriculum and course works more efficiently
- To maintain high transparency in student assessments
- To provide core support and essential autonomies for students

The Context

In the context of OBE, head of the department is the program coordinator (PC) and key role player in order to execute all the activities of OBE. The PC will monitor and review the activities of the program for all the four years through Module Coordinators.

Many modules were considered as per the requirement for the program. Module coordinators (MC) were ratified by Internal Quality Assurance Cell (IQAC). The module coordinators are responsible for the delivery of the teaching in individual modules and the accompanying administration. Module coordinators conduct meetings with course coordinators (CC) for execution of activities under their module.

Course coordinator is designated wherever the same course is offered by different course lecturers in different sections/classes. The CC is responsible for planning, delivering and assessing the outcomes of the courses offered by him/her during the semester/year. Course coordinators are accountable to the program coordinator for all academic and administrative activities associated with the course instructor. He/she has to work in coordination with the course lecturer and the module coordinator for the day to day activities and with the program coordinator for the overall course administration. The course coordinator is expected to maintain academic quality in knowledge, pedagogy and alignment of the learning activities with course outcomes and assessment.

The Practice

With the intend of assuring the quality of **SCET** academic programs and facilitating students' success at the college the department management appoints course coordinators considering the following criteria's.

- Taught the course in multiple times
- Senior most and active members
- Possess domain knowledge
- Amicable and possess team skills
- Constantly update knowledge in emerging areas.

Generally, the role (CC) encompasses, course planning, course design and development, course delivery, selection of educational resources, assessment, students' learning outcomes and course evaluation.

Particularly, the course coordinator tasks may include:

- Make a common course handout indicating in detail the syllabus, and the content to be delivered in each session. Even the method/s to be adopted is indicated in the course handout.
- Prepare a lesson plan that indicates the specific time allocation for each of the sub topics of the units. This helps the course instructor to plan their sessions and keep track of the lags and leads in the course delivery.
- Prepare PPTs related to the syllabus.
- Find text books, reference books, other online resources or video lectures etc.
- Identify disparities in the delivery of course, as per the session plan and suggest necessary action plans to overcome such run time hassles.
- Monitor the progress of the course through weekly course meetings.
- Deliberate and approve the sub topics to be delivered in the upcoming week are also discussed.
- Provide possible solutions to problems expressed regarding the delivery of the syllabus and or the method to be adapted after discussion in the course meeting.
- Discuss the model paper for internal assessment.
- Setting of question papers for internal examinations.
- Preparing the scheme of evaluation for internal examination
- Preparing rubric for indirect assessment

Evidence of Success

For the triumph implementation of OBE, rigorous meetings that have convened in coordination with PC, MC, CC/ course lecturer for strengthening the curriculum.

- The PC has called MC and CC for meeting twice during the academic year and address the action plan of the semester and provides guidelines to the MC and CC.
- The MC has conducted meeting with CC twice in a semester. Wherein guideline for the delivery of the teaching in individual modules were provided.
- The CC has conducted meeting with course lecturers in the event of preparation of course outcome, course material, lesson plan, delivery methods and list of text and reference books at the beginning of the semester.
- The CC has conducted meeting with course lecturers in the middle of the first cycle (MID-I), second cycle (MID-II) and third cycle (MID-III) instruction to monitor the progress of course coverage.
- The CC has conducted meeting with course lecturers before and after MID examination to set internal question paper and to prepare schemes of evaluation respectively. In this meeting coverage of contents as per outcome and learning perspective, distribution of marks has been ensured.
- The CC has conducted meeting with course lecturers and the questioner, for indirect assessment was decided.

It is perceived that the mechanism has ensured the smooth and uniform delivery of a single course in the multi-section scenario. Moreover, attainment of CO and PO have computed collectively and transparently. Thus, CC seems an effective component in the OBE. With the Outcome Based Education, both educators and learners are benefitted.

Problems Encountered and Resources Required

The common challenges involve while implementing the practice are as follows:

- Identifying faculty who have the prerequisites to be course coordinators
- Allocating time: It may difficult to find a common time to conduct meeting as the CC also a course lecturer. They may require time during the semester to meet with and monitor student groups and at the end of the semester to ascertain the contributions of individual team members.
- Conflict resolution skills- CC must have the ability to convince the team members those who reluctance to adapt the new methodology which is common to all human systems.
- Some of the program has single section, in such a case the MC acts as CC if course lecturer is different.
- Commitment and motivation were the most important factor of a faculty that was related to the student's success. Therefore, exclusive faculty development program is required for better understanding and implementation of OBE.

PRACTICE-II

Title of the Practice

Employability Skills Enhancement Program- an innovative approach

Objectives of the Practice

The objective of this practice is to provide training to all branches of the students during pre-final year, semester break and final year to enhance employability skills.

The Context

After graduation, when students enter the engineering profession, in addition to domain knowledge, other skills and abilities such as communication skills, leadership, innovation, team building are very much required to become successful in their profession, which are not directly covered in the curriculum. To address this need a unique certificate course on employability skills enhancement and career building is designed which focuses on self awareness, professional skills and communications.

The Practice

The pre-final semester break course was implemented in 90 hours in three weeks continuously with make use of third party professional trainer. The course comprises of two parts, one is communication and personal effectiveness, whereas the second is aptitude and logical ability. These are constituted eleven and fourteen modules respectively.

The 60 hour course was conducted for the final year students of all the branches. Students are divided into five batches. In a week, each batch attends one session of two hours duration. Total 30 sessions are planned throughout the academic year for all batches. These sessions include as follows:

- Verbal skills
- Speaking/writing/reading skills
- Basic reading comprehension skills
- Effective active listening skills

- Body language

At the end of the training Program, every student gets course completion certificate.

Evidence of Success

Assessment of the students is carried out at the end to understand the impact of the program which is conveyed to the students individually. Following generalized statements can be drawn on the basis of students' feedback.

- The course is observed to help students improve their skills such as individual report writing, creative and strategic thinking, etc.
- There is a noticeable positive change in the overall personality of the students who have completed this course.
- Mock interviews and group discussion sessions conducted under this program have resulted in positive feedback from the companies visiting the campus.

Problems Encountered and Resources Required

- This program needs to be planned beyond the students' regular academic engagements. Hence, it becomes challenging to identify free time-slots for large groups of students.
- A separate faculty coordinator had to be assigned for the smooth conduction of the program.
- The college has made an auditorium available for all the sessions and to all the batches.

File Description	Document
Best practices in the Institutional web site	[View Document](#)
Any other relevant information	[View Document](#)

7.3 Institutional Distinctiveness

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

Response:

The institution was established by the Vasista Educational Society pioneered by Technocrats and Philanthropists in 2001. The Organization structure consists of participative committees like Governing Body, Academic Council, College Academic Committee and various committees including statutory committees-Anti-Ragging, Student Redressal, Women grievances and prevention of sexual harassment committees.

The philosophy of the management is to impart quality education to the students of rural and semi-urban regions in and around West Godavari District. Management has reiterated this noble cause in the Vision document, which states to produce globally competent, ethical and dynamic Professionals by creating a

centre of excellence for societal empowerment which has been a priority since its inception.

The mantra, i.e. Achieving Center of Excellence in technical education, is broadly classified into three phases.

Phase 1:- During 2001-2006: Started 03 UG programs with an intake of 60 each.

Phase II:- Consolidation (Growth) Phase 2006-2015: The Institution Mission was to provide quality technical education. Management strongly believes that to achieve mission, Accreditation by NAAC and NBA are the key indicators for the quality education. The Institution was accreditated by NAAC with CGPA 3.32/4.00 and also accredited by NBA.

The Institution is permanently affiliated to JNTUK, Kakinada and secured UGC 2 (f) & 12(B) recognition. The institution got autonomous status from UGC and University.

Phase III (2015-2020) is considered a period of excellence. All programmes follow CBCS curriculum with more focus on industry-academia interaction and outcome-based orientation which is consistently driving the changes in the curriculum with an emphasis on Innovation, Entrepreneurship and Research.(IER).

The strategic plan for 2020-2025 is drafted, taking into consideration the changes in global competency requirements.

All programmes have undergone syllabus revision in the last five years, and up to 35% of the new courses were introduced including interdisciplinary courses. This robust curriculum revision has contributed immensely in the form of employment.

Approximately 60% of the eligible final year students are placed in top companies like Cisco, TCS, Infosys, Wipro, Cognizant, Amazon, etc. However, the management considers the introduction of Ph.D programmes and promotion of collaborative research through foreign university tie-up.

Response:

The implementation of distinctiveness actions are listed below.

1. Our institution is the first of its kind having "**Nanotechnology Research Centre**" established in collaboration with International Accreditation Council of Quality Education and Research and offers M.Tech (Nano Technology), with the equipment worth of Rs.61.46 lakhs. In Andhra Pradesh, this college is unique to have well-equipped research laboratory with the cleanroom facility in a self-financing affiliated college which is so broad and universal that they will influence all areas in the ways that are inevitably unpredictable where all department faculty are actively involved . Research grants received from UGC, AICTE, UGC-DAE, DST, DRDO and IACQER for the projects.

2. **Family Project** has been introduced for a group which has members of students from final year to the first year. All the members of the group will share, discuss, plan to implement the project. A faculty member is a coordinator for a group. When final year students leave the institution, they will guide their juniors from outside, and new first-year students will join in the same group to continue the project for the completion. If the project is completed, the group will choose a new plan. It will be a continuous process.

3. Being a rural-based institution, the students face the challenges in competitions & difficulties in grabbing jobs due to lack of communication. For the enhancement of Communication skill, Training programmes are introduced from first year onwards along with their academics. The syllabi was framed differently to attain the ability with international standards for expertise in communication through English lab and had a tie-up with GLOBARENA and FALCON to get high quality in the training.

4. The green energy is promoted by installation of solar panels on all buildings of the institution for the generation of electricity and also solar water heater installed on the hostel buildings. The whole campus is covered with trees and garden to maintain landscape.

5. Centre of Excellence / Incubation centre was established by the department of Information Technology in collaboration with SMARAGDINE Technologies Pvt. Ltd, Hyderabad. The center has Internet facility with high bandwidth for better on-line access of learning materials to enhance research activity in the area of IoT. The institution has signed a Memorandum of Agreement with SMARAGDINE Technologies Pvt. Ltd to provide hands-on experience to the pre final under graduate engineering students directly in the projects of Device Authority. Arduino, Raspberry Pi and Node MCU kits are used in these projects on Linux platform. The Incubation Center promotes real time experience for both student and teaching community thus attaining outcome based education objectives.

6. **Social awareness** is the ability to accurately interpret a social environment as well as infer the emotions of others in that environment. Several awareness programmes are conducted for the students to attain awareness on all issues of society.

7. The institution provides free **education to economically deprived** students by giving various Scholarship schemes such as tuition fee, free transportation and accommodation for the eligible students on merit-basis.

8. **PMKVY** training is being conducted to enrich the skill of youth relate to productivity in industries. Pradhan Mantri Kaushal Vikas Yojana (PMKVY) is the flagship scheme of the Ministry of Skill Development & Entrepreneurship (MSDE) implemented by National Skill Development Corporation.

9. Applied Robotic Control lab was established, with the collaboration of APSSDC & ECM Germany, specialised training is giving to bridge the gap between students and industry with two Advanced Robots.

10. 3D experience lab was established in collaboration with Dassault Systemes and APSSDC

File Description	Document
Appropriate web in the Institutional website	[View Document](#)

5. CONCLUSION

Additional Information :

Awards Received by Swarnandhra College of Engineering and Technology

- Recognized by **"The Knowledge Review Magzine"** as the one of the **best 20 Engineering and Technolgy Institutes** in India (2018).
- **"The Academic Insights"** recognized Swarnandhra College of Engineering and Technology as one of the **Top 50 Engineering Colleges in India** (2018).
- One of the Top 50 performing colleges by **IBM Bluemix** (2016).
- **"Excellence in Academia and Industry Interface"** by **WORLD HRD CONGRESS** (2013).
- **"Best Engineering Institute in West Godavari"** award by **Indo-Italian Research Center** (2013).
- **"Indira Priyadarshini National Award"** by **Health Care International** (2006) at Telugu University, Hyderabad on the eve of Smt. Indira Gandhi Birth Day Celebrations.
- **"Rashtriya Vidya Saraswati Puraskar" by International Institute of Education & Management**, New Delhi (2006).
- **"Best Educational Institution"** by **Shilpa Art Creations** (2006).
- **"Excellence Award for JKC"** from Dr. Y.S. Rajasekhar Reddy, Chief Minister, Andhra Pradesh (2005).

Concluding Remarks :

Swarnandhra College of Engineering and Technology (SCET) was established in the year 2001 with an ambition of imparting high-quality technical education to the students. Lust greenish lawns and serene atmosphere surround the campus. Management has provided all the state-of-the-art infrastructure and amenities.

The institution started with an intake of 180 seats with three UG programmes and gradually reached to 1068 with six UG programmes and eight PG programmes. During its journey, the institution has reached various milestones like NBA, NAAC accreditations, permanent affiliation, and UGC autonomy.

The institution has been continuously striving to make the students to meet academic and industry requirements by updating its curriculum from time to time. The institution follows Choice Based Credit System (CBCS) and Outcome-Based Education (OBE). The faculty members of the institution adopt student-centric methods with ICT tools. The institution has adopted the practice of decentralization. The institution has defined research and development, and consultancy policy.

The Internal Quality Assurance Cell (IQAC) administers quality management strategies in all the academic and administrative aspects. Fair practices and transparency are maintained in conducting the examinations as well as an evaluation process.

The Management has taken initiatives towards the benefits of the society as it is an integral part of institution's Vision. With a perspective to achieve the vision, the institution has prepared a strategic document that states continuing the status of accreditations, permanent affiliation to JNTUK, UGC autonomy, the establishment of research and innovation centers, incubation centers, consultancy, startups, and placements.