SELF STUDY REPORT

FOR

1ˢᵗ CYCLE OF ACCREDITATION

STELLA MARY'S COLLEGE OF ENGINEERING

ARUTHENKANVILAI, AZHIKAL POST KANYAKUMARI DISTRICT
629202
www.stellamaryscoe.edu.in

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

(Draft)

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Stella Mary's College of Engineering is a private, self-financed co-educational college established in 2012. It is promoted by Nova Educational Trust and founded by the renowned entrepreneur of Kanyakumari District, Dr. Nazareth Charles with a view to provide value-based quality education. The college is located amidst a beautiful eco-friendly ambiance, set in sylvan surroundings in an oasis of peace and calmness. The college is only miles away from the Azhikal sea shore, Manavalakurichy, Kanyakumari District, Tamil Nadu.

Stella Mary's College of Engineering is approved by the All India Council for Technical Education (AICTE), New Delhi and affiliated to Anna University, Chennai. Currently, Stella Mary's College of Engineering offers five undergraduate Engineering programmes and one post graduate Engineering programme.

The undergraduate programmes are:

1. B.E.- Civil Engineering
2. B.E.- Computer Science and Engineering
3. B.E.- Electrical and Electronics Engineering
4. B.E.- Electronics and Communication Engineering
5. B.E.- Mechanical Engineering

The postgraduate programme is:

1. M.E.- Computer Science and Engineering

The institution creates a platform for quality engineering education that shapes them into technically sound, competent, successful, and creative engineers also moulding them to become responsible human beings.

Vision

To emerge as a premier institution, acknowledged as a centre for excellence imparting technical education, creating technocrats who can address the needs of the society through exploration and experimentation and uplift mankind.

Mission

To provide an education that transforms students, through rigorous course-work and by providing an understanding of the needs of the society and the industry.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

1. Sprawling Campus in a peaceful environment near the seashore with excellent Infrastructure.
2. Lab facilities that are more than adequate.
3. Good support from the Management for effective implementation of the vision and mission of the Institution.
4. Highly qualified and competent faculty members.
5. Student-centric practices.
6. Good abroad Placement record.

Institutional Weakness

1. Located geographically in a rural region.
2. The alumni association has to be more strengthened.
3. Lack of Research promotion culture.
4. Inadequate R & D Budgeting.
5. The number of MOUs with Industries has to be enhanced.
6. The implementation of ERP in all functional areas.
7. Scanty number of faculty publications

Institutional Opportunity

1. Going for additional courses in UG and PG.
2. Establishment of Research Centres
3. NBA Accreditation of all the programmes.
4. To undertake research projects and other research initiatives.
5. To find the maximum opportunity for commercializing the research outcomes.
6. Exploring more prospects for consultancy projects.
7. Enhancing the Alumni Engagement
8. Possibility of Autonomy

Institutional Challenge

1. Lack of interest towards Engineering Education.
2. Getting students with high cut off marks from the competing environment of engineering colleges in the state.
3. Changing the attitude of students in quality improvement aspects.
4. Orienting the students from rural background towards the usage of English in the campus for communication and other quality aspects.
5. Placement in core companies.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

The academic planning schedule of Stella Mary's College of Engineering is based on the academic schedule of

Anna University and the process is carried over in accordance to it within the approved timeframe. The delivery mode of the syllabus content is planned in such a way that it reaches the slow learners and fast learners appropriately through various modes of learning like flipped classroom, participative, experiential, project based and model based learning and is monitored for implementation.

The following steps are followed by the institution to ensure the various curricular aspects

1. Implementation of Choice based system (CBCS)/elective course system has been done the institution by 100%.
2. To make the students of SMCE 'Corporate Ready' Value added courses were introduced into the academic scheme of functioning. A count of 1548 students could successfully complete the value added courses starting from 2013 till 2018. 84 students have completed field projects/internships, during the last five years.
3. The students are encouraged to do innovative projects at all levels.
4. A very much strengthened Mentoring system to counsel the students on academic and personal issues.
5. Class committee meetings convened periodically helps in reviewing and providing corrective measures in a methodical manner.
6. The students are motivated to go for field projects/Internships.
7. Both the genders are given equal opportunities in terms of admissions, employment, training programmes, etc.
8. By studying subject like Professional Ethics in Engineering, Environmental Science and Engineering Principles of Management, Total Quality Management Environmental Science and Engineering students are educated on being ethically responsible, and also on organization environment, quality polices and nature concerns.
9. Feedback from the corporate sector projected the need for more number of field visits and in-plant trainings into the academic processes of the Institution. The upgradation of the syllabi according to the latest trends in the industry was wanted by many parents.

These suggestions have been taken note of and the institution aims to implement most of the suggestions as fast as possible in the most feasible manner. Some of these have already been put into implemented during the last five years.

Teaching-learning and Evaluation

The teaching, learning and evaluation process of the institution is implemented meticulously. In the admission procedure of Anna University a transparency is ensured in the Counselling process so that engineering aspirants get admitted into Engineering Colleges based on the displayed rank list. When the students enter the institution the heads of the various departments scrutinize the registration forms analysing the student's data and interests.

As they step into engineering, before the regular classes commence, bridge courses are conducted. Mentoring task is assigned to each faculty member who would be mentoring a maximum of 20 students for the entire course. Special care is given to slow learners and peer learning is encouraged in their case to improve their performance. During the last 5 years, the institution has more than 60 well experienced faculty members

as per the institution's and the affiliating university's norms.

For enrichment of the skills of the learners at different levels the teaching learning process adapts in Stella Mary's College of Engineering adapts the following features.

- Quantifiable Program Outcomes that can be mapped to the Qualities of a commendable and skilful graduate.
- To ensure the quality in the teaching, learning and evaluation processes the institution refers to both the knowledge and the cognitive dimension of the revised Bloom's taxonomy.
- The Programme Outcomes (POs) and Course Outcomes (COs) are appraised to the students.
- The faculty members follow both conventional and innovative teaching methodologies like collaborative learning, flipped learning, experiential learning, model based learning etc. catering to the needs of the students.
- The usage of ICT tools and e-learning resources such as google classroom, NPTEL videos, and various other coding platforms add to the effectiveness of the process.
- A transparent feedback system addresses and assesses the Teaching – learning process.
- Learning experiences are enriched through Industrial Visits and Internships as an outcome of active MoUs.

Research, Innovations and Extension

The Institute has taken a step forward towards research and associated activities through equipped research laboratories/product development cells, conducting technical seminars, workshops and training sessions relating to recent technologies in the various fields to enhance the knowledge of the students on the emerging fields of research.

The management has extended its support to the faculty members for registering their Ph.D and to carry out their research. The Research scholars have published papers in national and internationally reputed journals.

The institution has established the Research & Development Cell with the objective of

- Encouraging and nurturing inter-disciplinary and intra-disciplinary research thrust among students and faculty members in its activities
- Inter-disciplinary research is promoted through discussion between senior faculty members of various departments to identify industry need and society need projects.
- The students are given the utmost freedom to approach the faculty for support in research work and work in the research laboratory of any department.
- The open elective choice offered in the curriculum of the affiliating university also aids in offering expertise in inter-disciplinary areas motivating the students to select inter disciplinary projects.

The institution has established the EDC Cell with the objective of

- enhancing the innovative and rational skills of the students and faculty

- preserving the intellectual properties.

The institution also promotes various schemes for Corporate Social Responsibility, YRC, NSS and NGO - Blood Donation, Swachh Bharat, etc.

The institution also facilitates Industry Linkage

- by expert lectures by industrial experts.
- through industrial visits and internships undertaken.
- by MoUs with industries for conducting certified courses.
- through collaborative research and promoting in-plant training.

Infrastructure and Learning Resources

The Institution upholds an optimistic approach towards the enhancement and the upgrading of infrastructure which is based on the curriculum requirement as per AICTE and Anna University standards. The following facilities are available in the campus.

- All Seminar halls and smart class rooms with ICT enabled facilities such as LCD Projector, White board, LAN, Amplifier & Speakers, PC with keyboard.
- Entire campus is Wi-Fi enabled.
- Spacious class rooms that are well-ventilated and well-lit.
- Mobile projectors are available in every department to promote a visual mode of an ICT enabled teaching and learning process.
- Laboratories equipped with state-of-the-art standard equipment.
- Language Lab provided to enhance communicative skills and language.
- A separate hostel with all In-House facilities is provided in campus for boys and girls.
- Ramps and special toilets for the differently abled .
- The campus is spread over an area of 40 acres with a built-up area of 2, 43, 484.24 sq. ft.
- Sufficient budgetary provision to ensure for proper maintenance of infrastructure and academic support facilities.
- Library is fully automated with Info library software and barcode Technology.
- Availability of 3140 titles, 16385 Volumes, 233 journals and Institutional memberships like DelNet,
- Our College has 100 Mbps internet connectivity (100Mbps provided by AT broadband) with wired and Wi-Fi hotspots with extenders.
- 420 Computers and all are connected with LAN facilities.
- Installation of Wi-Fi devices at 9 locations. (Office, Admin Block, Placement Cell, Civil block, EEE block, ECE block, CSE block, MECH block, BigData Lab)
- Well-equipped facilities for recording and lecture capturing system are available.

Student Support and Progression

The Institution supports the students for their progression through the following activities:

- Students are promoted and supported to get the available Government Scholarships. Apart from this the institution also offers merit scholarships for meritorious students and financial support in reducing the

tution fee for students thus offering a fee waiver.

- In plant trainings, Industrial visits and Internships are facilitated as a part of vocational training programmes to create and link the theoretical education imparted with the working environment.
- To enrich the knowledge by considering the skill set of the students various classes such as Guidance for competitive Examinations, remedial classes and Bridge courses are conducted to strengthen the academic and competitive excellence.
- For developing the complete personality of the students, Personal counselling is given by mentors.
- Students' right to information and safety is ensured by committees such as Anti-ragging committee, Internal Complaints committee and Grievance redressal committee.
- The technical skills are promoted to the students at the institutional level through the various department association activities.
- Students are encouraged to exhibit their individual talents and skills in extra-curricular activities both inside and outside the Institution by means of their active participation in the various club activities.
- The Alumni Association of our Institution has set a strong bondage between our alumni and the institution in order to keep it alive for a lifelong involvement with the Institute.

Governance, Leadership and Management

- Recognized by All India Council for Technical Education, the institution is approved by the Government of Tamil Nadu and affiliated to Anna University, Chennai.
- The Governance of the institution accords strictly with the Vision and Mission.
- Intending for better governance and performance, the system is effectively decentralized.
- The Governing Council includes the Chairman of the institution, the Vice Chairman, the Chief Executive Officer, the Director and the Principal which takes the major decisions that have a bearing on the function and the goal of the college.
- The staff council of the college is headed by the Principal, with all the HoDs as members who would ensure the appropriate implementation of the directions given in accordance with the decision made by the Governing Council.
- The Principal, who is the academic head of the institution, is given enough freedom by the Management to function in order to fulfill the vision and mission of the institution. HoDs are entrusted with department level authority. The office administration of the College is headed by the Principal.
- To ensure the proper utilization of funds, internal and external audits are performed periodically.
- IQAC takes care of the quality objectives, procedures and measures for the continual quality improvement of the college.
- Various committees and cells with defined goals and responsibilities are constituted.
- Welfare measures approved by Governing Council, are provided for both teaching and non-teaching faculty members for their academic and professional development
- The students are incorporated with the best social practices by engaging them in the various extracurricular and co-curricular activities.

Institutional Values and Best Practices

- Stella Mary's College of Engineering offers cent percent gender equity and its policies show priorities given to women in all its functioning and activities
- A dedicated 'Antiragging Cell' and 'Internal Compliance Cell'(Women Empowerment Cell) is constituted to take care of women welfare in the campus.

- In the total power consumption, 0.08% is met through renewable energy source of solar and 26.27% is met by the use of LEDs.
- Solid waste management offers solutions for recycling item that do not belong to garbage or trash treatment and liquid waste management helps to recycle the waste water for a profitable operation in the campus. Hostel Kitchen waste is used for generating bio gas .
- Rain water harvesting (RWH) is done in the new block and the S&H block and by means of a pond in the campus to improve the ground water .
- Green practices such as solar powered vehicle , planting more trees have been implemented in the college campus .
- Sufficient funds are allotted for improving the green landscape of the college, suitable waste management and effective recycling. Green Audit was conducted by both Internal and External Agencies.
- College is providing facilities for Differently people like ramp , rest rooms etc.
- To add to the development of students and local community , the college used to conduct program like dengue awareness program, blood donation camp , energy awareness etc.
- College is maintaining a Code of conduct for students and staffs. and an admin manual also .
- To add ethical and human values, activities Engineers Day, Gandhi Jeyanthi Independence Day, , Dr. A.P.J. Abdul Kalam's condolence meet, yoga day and other events are commemorated in the campus regularly.
- The institution maintains its transparency in the financial, academic and administrative functioning and it is clearly vivid through its banking transactions.
- The institution has best practices as the OBE based teaching learning process and the effectiveness of the activities carried out under the Centre for Innovation.
- The institution proves good placement record for students placed in India and mainly abroad.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	STELLA MARY'S COLLEGE OF ENGINEERING
Address	ARUTHENKANVILAI, AZHIKAL POST KANYAKUMARI DISTRICT
City	NAGERCOIL
State	Tamil Nadu
Pin	629202
Website	www.stellamaryscoe.edu.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	R. SURESH PREMIL KUMAR	04651-239122	7402707777	04651-239622	principal@stellamaryscoe.edu.in
IQAC / CIQA coordinator	R. REENA DAPHNE	04651-239522	8973943326	04651-239022	iqac@stellamaryscoe.edu.in

Status of the Institution	
Institution Status	Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minroity institution	No

Establishment Details	

Date of establishment of the college	15-11-2012

University to which the college is affiliated/ or which governs the college (if it is a constituent college)		
State	**University name**	**Document**
Tamil Nadu	Anna University	[View Document](#)

Details of UGC recognition		
Under Section	**Date**	**View Document**
2f of UGC		
12B of UGC		

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)				
Statutory Regulatory Authority	**Recognition/Approval details Institution/Department programme**	**Day,Month and year(dd-mm-yyyy)**	**Validity in months**	**Remarks**
AICTE	[View Document](#)	29-04-2019	12	Nil

Details of autonomy	
Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?	No

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

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	ARUTHENKANVILAI, AZHIKAL POST KANYAKUMARI DISTRICT	Rural	40	22620.42

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BE,Civil Engineering	48	HSC	English	60	29
UG	BE,Computer Science And Engineering	48	HSC	English	60	47
UG	BE,Electrical And Electronics Engineering	48	HSC	English	60	37
UG	BE,Electronics And Communication Engineering	48	HSC	English	60	48
UG	BE,Mechanical Engineering	48	HSC	English	60	55
PG	ME,Computer Science And Engineering	24	BE B.Tech	English	24	8

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				6				10				51
Recruited	3	3	0	6	5	5	0	10	25	26	0	51
Yet to Recruit				0				0				0

Non-Teaching Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				54
Recruited	33	21	0	54
Yet to Recruit				0

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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				13
Recruited	7	6	0	13
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.	3	3	0	1	1	0	0	0	0	8
M.Phil.	0	0	0	0	1	0	3	5	0	9
PG	0	0	0	4	3	0	22	21	0	50

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	145	10	0	0	155
	Female	77	3	0	0	80
	Others	0	0	0	0	0
PG	Male	0	0	0	0	0
	Female	5	3	0	0	8
	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	9	2	6	1
	Female	5	2	0	2
	Others	0	0	0	0
ST	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
OBC	Male	100	85	76	93
	Female	55	42	68	53
	Others	0	0	0	0
General	Male	10	5	24	18
	Female	13	22	11	7
	Others	0	0	0	0
Others	Male	26	25	29	28
	Female	25	27	12	23
	Others	0	0	0	0
Total		243	210	226	225

3. Extended Profile

3.1 Program

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

Response: 605

File Description	Document
Institutional Data in Prescribed Format	View Document

Number of programs offered year-wise for last five years

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

3.2 Students

Number of students year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
822	777	718	496	278

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 the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
324	324	324	384	384

File Description	Document
Institutional data in prescribed format	View Document

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

2018-19	2017-18	2016-17	2015-16	2014-15
199	144	143	3	-

File Description	Document
Institutional Data in Prescribed Format	View Document

3.3 Teachers

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

2018-19	2017-18	2016-17	2015-16	2014-15
67	87	87	72	42

File Description	Document
Institutional Data in Prescribed Format	View Document

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

2018-19	2017-18	2016-17	2015-16	2014-15
67	87	87	72	42

File Description	Document
Institutional data in prescribed format	View Document

3.4 Institution

Total number of classrooms and seminar halls

Response: 40

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

2018-19	2017-18	2016-17	2015-16	2014-15
377	405	868	1178	749

Number of computers

Response: 391

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curricular Planning and Implementation

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

Response:

Stella Mary's College of Engineering has developed extensive facilities for developing and promoting a cooperative learning environment by creating more dynamic student engagement in the classroom. The campus is WIFI enabled to provide an opportunity for the students and staffs to have a technology led learning process.

The institutional academic calendar is prepared based on the Anna University calendar prior to the commencement of the academic year specifying the dates for significant activities to ensure proper teaching –learning process and it is circulated to each department.

The process of selection, planning and delivery of courses is properly monitored through meeting and reviews conducted in every department. The well qualified faculty members prepare the course materials in advance based on the course plans and deliver their lectures more effectively. LCD projectors are available in each department to enable e-learning teaching procedures using PPTs and lecture videos. Conventional classroom teaching is merged with reasonable use of ICT tools to make the teaching learning process a more interesting system. Weekly exams and internal assessments are conducted to measure the academic performance of students. Weak students are identified and remedial classes are conducted to improve their academic performance. Students are made to work out University and Model Question papers to improve their performance.

Class committee meetings are conducted for each section of class. They meet periodically and students give their inputs on their academic improvement, problems in learning, if any and suggestions for further action. Minutes are prepared for each meeting and the feedback about the courses is discussed with concerned faculty members. Mentoring System for students is followed effectively for identifying the student's personal issues to improve their results in the Examinations, to regularize their attendance, to increase their participation in co curricular activities, to ensure better discipline inside and outside campus and to maintain cordial relationship with their teachers.

All the laboratories are fully equipped and are made available for teaching and research purposes. The experiments for students are conducted as per the university syllabus and exams are conducted periodically.Classroom teaching is supplemented with Tutorials, Paper presentation, projects, internships, assignments, educational tours and industrial visits for effective delivery of curriculum.Both institutional and departmental library is well-resourced with rich database of books, e-books, journals and e-journals enabling students and faculty to improve their technical knowledge.

Though the syllabus prescribed by Anna University is followed, a frequent updation of curriculum is done to meet the recent development through value added courses/Certificate Course which helps the students to improve their technical skill and to impart field knowledge.The college encourages faculty members to

attend faculty development programme, Orientation/ Refresher courses, workshops and conferences conducted by other Institution and Universities for updating and acquiring essential skills for effective curriculum delivery.

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

1.1.2 Number of certificate/diploma program introduced during the last five years

Response: 34

1.1.2.1 **Number of certificate/diploma programs introduced year-wise during the last five years**

2018-19	2017-18	2016-17	2015-16	2014-15
5	5	24	0	0

File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Details of the certificate/Diploma programs	View Document
Any additional information	View Document

1.1.3 Percentage of participation of full time teachers in various bodies of the Universities/ Autonomous Colleges/ Other Colleges, such as BoS and Academic Council during the last five years

Response: 295.77

1.1.3.1 Number of teachers participating in various bodies of the Institution, such as BoS and Academic Council year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
53	54	45	37	21

File Description	Document
Details of participation of teachers in various bodies	View Document
Any additional information	View Document

1.2 Academic Flexibility

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

Response: 52.23

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

Response: 316

File Description	Document
Details of the new courses introduced	View Document

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

Response: 100

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

Response: 6

File Description	Document
Name of the programs in which CBCS is implemented	View Document
Minutes of relevant Academic Council/BOS meetings.	View Document

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

Response: 39.99

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

2018-19	2017-18	2016-17	2015-16	2014-15
574	522	452	0	0

File Description	Document
Details of the students enrolled in Subjects related to certificate/Diploma/Add-on programs	[View Document](#)
Any additional information	[View Document](#)

1.3 Curriculum Enrichment

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

Response:

The Institution follows Anna University curriculum which includes Environmental science, professional ethics, total quality management and principles of management.Environmental Science and Engineering is an interdisciplinary program with the objective of understanding, estimating, and reacting to natural and human-induced ecological change. It addresses issues such as global warming, ozone layer depletion, green house effect and domestic and industrial air, water and noise pollution.The curriculum also deals with the scientific disciplines including atmospheric physics and chemistry, oceanography, glaciology, hydrology, geophysics, ecology, and biogeochemistry. The importance of sustainable development, water conservation and management, rain water harvesting, population control etc. has been discussed.

The professional ethics in engineering aims to a) Create awareness on professional ethics and Human Values b) Create awareness on Engineering Ethics providing basic knowledge about Engineering Ethics, Variety of moral issues, Moral dilemmas, Professional Ideals and Virtues c) provide basic familiarity about Research Ethics, Codes of Ethics and Industrial Standards to promote engineers as responsible researchers d) inculcate knowledge and exposure on Safety and Risk, Risk Benefit Analysis and have an idea about the Collective Bargaining, Confidentiality, Professional, Employee and Intellectual Property Rights .

The total quality management describes the approach of a management for a long term success achieved through the satisfaction of the customers. The total quality management also aims to create knowledge about the management methods which are used to enhance the quality and productivity in business organisation. The principles of management defines the activities such as planning, organizing and controlling the operations of the basic elements of people, material and machines used, strategies, money and markets, direction, coordination of people and leadership to human efforts.

File Description	Document
Any Additional Information	[View Document](#)

1.3.2 Number of value added courses imparting transferable and life skills offered during the last

five years

Response: 2

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

Response: 02

File Description	Document
Details of the value-added courses imparting transferable and life skills	[View Document](#)
Any additional information	[View Document](#)

1.3.3 Percentage of students undertaking field projects / internships

Response: 10.22

1.3.3.1 Number of students undertaking field projects or internships

Response: 84

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

1.4 Feedback System

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

B.Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

Response: A.Any 4 of the above

File Description	Document
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management	[View Document](#)
URL for stakeholder feedback report	[View Document](#)

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

B. Feedback collected, analysed and action has been taken

C. Feedback collected and analysed

D. Feedback collected

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

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

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

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

Response: 3.05

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

2018-19	2017-18	2016-17	2015-16	2014-15
16	24	25	19	8

File Description	Document
List of students (other states and countries)	[View Document]
Institutional data in prescribed format	[View Document]

2.1.2 Average Enrollment percentage (Average of last five years)

Response: 60.87

2.1.2.1 Number of students admitted year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
243	210	226	225	139

2.1.2.2 Number of sanctioned seats year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
324	324	324	384	384

File Description	Document
Institutional data in prescribed format	[View Document]

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

Response: 60.87

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

2018-19	2017-18	2016-17	2015-16	2014-15
243	210	226	225	139

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

2.2 Catering to Student Diversity

2.2.1 The institution assesses the learning levels of the students, after admission and organises special programs for advanced learners and slow learners

Response:

Orientation programs and bridge courses are conducted for the first year students once they get enrolled into the institution. The objectives of the orientation program for the freshers would be to introduce the students to various college services that would support their educational and personal goals and provide them an overview of the engineering curriculum. All students are categorized into Advanced learners and slow learners, on the basis of their performance in the higher secondary and the internal assessment tests. There is a mentor for each and every student who would regularly meet them and make discussions on their learning levels, behavior, personality development , skills, attitudes, examination results (internal and University) and share their day to day interactions/experiences. Based on the students interest, each semester industrial visits are being arranged which further improves their level of exposure to the recent developments in the field.

Advanced learners :

Advanced learners are identified through their performance in examinations and other co-curricular activities. The course in-charge and the mentors take care in every aspect of the student encouraging the them to be all-rounder's and thereby motivate them to take part in extracurricular activities, like National / International conferences, Workshop, Seminars etc.

The advanced learners are encouraged to engage themselves in most of the following activities :

- Appearing for competitive examinations (like Gate Coaching)
- Learning advanced e-courses through NPTEL
- To work on projects in the research labs and product development cells. A few to mention are ERP Project for College Software Automation, Wind energy System, Green Energy System and the like.

- To promote industrial program conducted by CKS Solution and Techno Park, 3Q industrial Training and Certification Services.
- Participation in international / national conference & symposium.
- Value added courses like PHP, HTML, ANDROID, and JAVA Script, AUTOCAD, CNC Programming – Lathe and Milling Non Destructive Testing (NDT) etc.
- Preparation of mind maps for any subject.
- Participation in internship programs.

Slow learners :

　　　　Those who are slow learners, the concerned mentor or faculty motivate them in a genial way and help them to achieve their personal goals. They offer a parental approach to slow learners for analyzing their problems, motivate them to improve their academic performance and also help to clarify their doubts regarding the concerned challenging subjects. An exam point of view special care is given to such students to help them make an easy pass.

The following activities are conducted for the slow learners,

- Remedial / Coaching classes
- lectures on important topics put up on Google classroom
- Re-test for enhancement of marks
- Additional practical sessions
- Assignments and solved University question papers
- Question banks
- Guidance for Seminar/Project presentation
- Tutorials

2.2.2 Student - Full time teacher ratio

Response: 12.27

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

2.2.3 Percentage of differently abled students (Divyangjan) on rolls

Response: 0

2.2.3.1 Number of differently abled students on rolls

File Description	Document
Institutional data in prescribed format	[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:

To pace in tune with the vision of our institution in imparting technical education, creating

technocrats, we have focused on the following student centric learning methodologies.

○ **Experiential learning**

Teaching based on Anna university curriculum is followed by all the course instructors using teaching aids like PPT, Video Lectures, Mind Map for specific subjects, and Google class room to enrich the day to day teaching learning process and make it interesting. This paves a way to make the students understand the engineering concepts very easily and expands their technical skill.

Guest lectures on contents beyond syllabus are organized by departments through experts from the various industries, eminent personalities from reputed institutions, to make the students aware of the recent developments in the various fields.

○ **Participative learning**

Knowledge sharing is emphasised and students are motivated to deliver lectures on technical topics and share their knowledge and experience with others. Peer learning of advanced learners to help the slow learners while preparing for the continuous assessment tests is also a key aspect for enhancing the performance of both the slow and fast learners greatly.

Interactive learning sessions are being organized through guest lectures, seminars and workshops that include hands on training. Department associations also allow the students to develop their organizational skills to improve their managerial potential. The classroom sessions are also made participative with teaching contents beyond syllabus after the completion of a unit in the syllabus. In every semester, value added courses are conducted to bridge the gap between the curriculum and industry expectations. The students are motivated to register online NPTEL certification course for enhancing the depth of knowledge in their core disciplines. Based on the curriculum needs Industrial visits are organized in each semester by every department.

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

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

Response: 76.12

2.3.2.1 Number of teachers using ICT

Response: 51

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

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

Response: 16.12

2.3.3.1 Number of mentors

Response: 51

2.3.4 Innovation and creativity in teaching-learning

Response:

The biggest challenge that any teacher would face in any learning session is to capture and sustain his/her students' attention. To make this happen, classroom experience has to be redefined with innovative ideas which would in turn make the teaching learning process more effective. The Institution approves this statement absolutely by implementing it in all the classroom sessions on a regular basis.

Pairing with technology, newer approaches to Teaching and Learning such as Outcome-Based Learning (OBE), Student-Centered Learning (SCL), Problem-based learning (PBL), and Flipped Classroom Approach (FCA) that became known in the recent times, has been incorporated into the institution's academic scheme of things. These approaches focus on empowering the students to be accountable to their own learning and served them in making them active learners. Also it could emphasise on hands-on experience in the teaching-learning process

All video classes deliver optimum effectiveness in teaching by making the students embrace new concepts through visual and auditory mode. NPTEL, Simulations, PPTs and Charts are considerably used to overrule the traditional black board teaching. Model based learning is also practiced inside the class rooms for some topics.

Apart from the traditional chalk & talk method of teaching-learning, the following various tools and techniques are used by faculty to make teaching more active and innovative:

1. ICT based teaching-learning (Video, PPT, etc)

2. Digital social learning platforms (WhatsApp, NPTEL, Google Class Room, etc)

3. ERP Projects

4. MOUs

5. Field Project

6. Different technical events.

7. Seminars/Workshops

8. Conferences(National & International)

   The centre for innovation also runs five different clubs1.Innovation network 2.Presentation studio 3.Communication café 4.Brain storming club and 5.Sports club in the last hour of every day's time table to infuse creative thinking among students. These clubs aim to bring about a transformation in the students' communication abilities in a stress-free and natural manner. The Institution follows the adage, 'only when the learning process is made enjoyable the brain retains inputs permanently and processes them positively.

2.4 Teacher Profile and Quality

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

Response: 100

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years	[View Document](#)

2.4.2 Average percentage of full time teachers with Ph.D. during the last five years

Response: 8.21

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

2018-19	2017-18	2016-17	2015-16	2014-15
9	8	5	4	3

File Description	Document
List of number of full time teachers with PhD and number of full time teachers for 5 years	[View Document](#)

2.4.3 Teaching experience per full time teacher in number of years

Response: 10.55

2.4.3.1 Total experience of full-time teachers

Response: 706.83333

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

Response: 0

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

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

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

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

Response: 1.63

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

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

File Description	Document
List of full time teachers from other state and state from which qualifying degree was obtained	[View Document](#)

2.5 Evaluation Process and Reforms

2.5.1 Reforms in Continuous Internal Evaluation(CIE) system at the institutional level

Response:

For effectively implementing the reforms as advised by Anna University, the College has an exclusive centralized examination cell headed by a Head of the Department to conduct the internal assessment and model examinations meticulously. The Institution has put into practice some reforms NPTEL assignments and Laboratory assessments. The Department Academic Audit Committee was constituted for the effective learning and assessment.

1. NPTEL Assessments and Tests

Students are asked to register in certain NPTEL courses, and attend the course also taking up assignments and examinations. This helps the students to widen their knowledge making them learn more on topics of their interest from the courses provided by Higher Learning Institutions.

2. Laboratory Assessments

For the laboratory courses, continuous evaluation is done during the conduct of every experiment performed with viva-voce questions pertaining to that particular concept. Students are also permitted to do any experiment for practice in the lab beyond their lab sessions. Also model examinations are conducted for the laboratory courses.

3. Department Academic Audit Committee

For ensuring a streamlined and a transparent procedure in the CIE, every department in has an Academic Audit Committee comprising the HOD and two senior faculty members. In the pre examination period, the committee scrutinizes all the question papers of REWRAP, Internal Assessment tests and Model examinations for the syllabus coverage, allotment of marks for every question, blooms level and for the weightage given to the mixing of theoretical and numerical questions. In the post examination period, the committee does the job of scrutinizing the corrected answer scripts and checks for any mark-omissions, any question uniformity in valuation and totaling of marks. Despite of all this, if any student has any further grievance on evaluation, it would be taken into account seriously and redressed without delay. The internal assessment and model examinations schedule is posted in advance and conducted in a centralized manner, thereby ensuring rigor and transparency in the procedures followed. Hence, the Continuous Internal Evaluation (CIE) system of the institution completely adheres to the terms prescribed by Anna University thereby providing enough opportunities for continuous learning.

2.5.2 Mechanism of internal assessment is transparent and robust in terms of frequency and variety

Response:

The college adheres to the evaluation system specified by Anna University for awarding the internal mark. The performance in each course of study shall be evaluated based on,

1. Continuous Internal Evaluation throughout the semester and

2. University examination at the end of the semester

- Each course, both theory as well as practical (including project work & Viva-voce Examinations) is

evaluated for a maximum of 100 marks. The project work is evaluated for a maximum of 200 marks.

- For all theory and practical courses including project work, the continuous internal assessment will carry 20% marks while the End Semester University examination will carry 80% marks.
- The time tables for internal assessment tests are planned well in advance and published on notice boards.
- The seating arrangement will be displayed on the department notice board for all the exams mentioned in the examination schedule.
- Students are also given awareness on the calculation of internal marks as soon as they join the college and also when they enter into their respective departments.
- For each subject two three sets of question papers are prepared by the concerned faculty in the prescribed format for all REWRAP tests, Internal Assessment tests and Model examinations. All the question papers are approved for further action only after being scrutinized by the respective Department Academic Audit Committee. (DAAC)
- The tests are conducted by a centralized examination cell wherein the invigilation duties are planned and executed.
- Detailed scheme of valuation and answer key is prepared and submitted to the exam cell by every course instructor prior to the correction of the answer scripts.
- The evaluated answer booklets are distributed to the candidates for their scrutiny within the next two days of the conduct of the exam. These corrected booklets are also randomly scrutinized by the Department Academic Audit Committee. The marks thus obtained are displayed in the department notice board for the students to ensure transparency in the internal assessment paper valuation.
- The marks are collected by the examination cell coordinators and analyzed by the HoD, Principal and the Director.
- The performance of every student is informed to his/her parent through progress reports. Parents of slow learners are also informed about the special remedial classes needed for their wards during parent-teacher meetings that are organized twice in a semester.
- Apart from this, after the publishing of the university results, the performance of all the students in the University examination is informed to the parents through phone calls made by the mentors and is also advised to follow the Anna University portal for viewing their wards' results.
- Intimation is also given to them regarding the remedial coaching planned for the students who have failed in the examinations in the preparatory phase of the upcoming semester examinations.

2.5.3 Mechanism to deal with examination related grievances is transparent, time-bound and efficient

Response:

The Institute has a Department Academic Audit Committee which scrutinizes the question papers and answer scripts for correctness and uniformity and this also acts as the examination fairness committee in certain circumstances with regard to any grievance on the student's side in the valuation process. Under such circumstances he / she can intimate his / her grievances either in person or in writing. The committee will take the utmost effort to sort out the grievance within three days from the reception of the petition regarding.

If the individual is feeling discontented with the outcome of the Department Academic Audit Committee, he/she can make a higher appeal with proper justification to the Principal.

If a student has any grievance with regard to University examinations, the student submits an application through the HOD which will be forwarded for redressal to Anna University.

The following measures are adopted to ensure an effective grievance redressal mechanism for the students.

1. If a student is absent for a test for genuine reasons, he/she is given a chance for

writing retest at the discretion of the HOD.

2. If a student happens to be on duty on the day of the test or examination, he / she is

given an opportunity to take up a retest on a later date on a different question paper.

3. If a student is not satisfied with his / her performance in any particular test or

examination, he/ she is given an opportunity to take up a retest on a later date on a different question paper.

2.5.4 The institution adheres to the academic calendar for the conduct of CIE

Response:

At the end of every semester and before the commencement of the first semester, the Academic Calendar is prepared by the institution, which clearly mentions all specific dates for Internal Assessments Examination (IA), answer sheet distribution dates, result publication and analysis dates, important holidays, dates of completion of units. Institution academic calendar is prepared in concurrence with the university calendar.

Before the commencement of each semester, academic calendar is circulated to the entire faculty to plan the execution of the planning made in the course detail forms. All the course plan and the course file content preparation are directed and monitored by the head of the departments and suggestions are given if needed. Every semester each department is conducting five class committee meetings. The class committee meetings are scheduled after the completion of internal assessment I, II, III, Coaching and model exam.

A 90-day operating semester is very much required for a student to cope up with the syllabus coverage and appear for the semester examinations of Anna University. The curriculum and the syllabi are framed in such a way that a course instructor should be able to cover the entire syllabus in either 45 periods or 60 period's duration. If the number of regular working days are found to be insufficient inadequate, Saturdays are also considered as working days.

The Academic calendar consists of the semester's reopening date, the total number of working days month wise and semester wise, Internal Assessment Test dates, Model examination dates, Government

holiday announcements, Parent Teachers meet dates, Project review dates and Class committee meeting information.

For example in the year 2018-19, in the odd semester, it consists of three Internal Assessment Tests and a model examination conducted per course during the semester. Internal Assessment Tests are conducted after the completion of every one and a half units of a particular course. Finally, after completion of all five units, model examination will be conducted for every course.

2.6 Student Performance and Learning Outcomes

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

Response:

Yes, the Program Outcomes (PO), Program Specific Outcomes (PSO), Course Outcomes (CO) are adopted for all programs offered by the institution has stated with the accreditation manual and communicated to teachers and students. The following locations to be viewedthe POs and PSOs for course instructors and students :

- Institution Web site
- HOD cabins
- All Faculty Rooms
- Notice Boards
- Department laboratories
- Department Library

1. **Program Outcomes (PO)**

Program Outcomes (POs) as identified by National Board of Accreditation (NBA), India are what the graduates of an undergraduate engineering program should be able to do at the time of graduation. Course instructor defines the course outcomes using Bloom's Taxonomy and map with the following twelve Program Outcomes which is prescribed by NBA , That is ,

- Knowledge Base [KB]
- Problem Analysis [PA]
- Investigation [Inv.]
- Design [Des.]
- Use of Engineering Tools [Tools]
- Individual and Teamwork [Team]
- Communication skills [Comm.]
- Professionalism [Prof.]
- Impact of engineering on society and the environment [Impacts]
- Ethics and equity [Ethics]
- Economics and Project Management [EPM]
- Life-long Learning [LL]

2. Program Specific Outcomes (PSO)

Program Specific Outcomes (PSO) is written by all department Heads, which is discussed with course instructor and course coordinators in the meetings. This is based on the all courses in the concern department. All PSOs are framed for achieving the COs and Mission and vision of the institution.

3.Course Outcomes (CO)

Course instructor prepares the Course Outcomes (CO) using Blooms Taxonomy, which is discussed with the course coordinator. At the beginning of each semester, each and every course instructor discusses the expected course outcomes with their students. The preparation of POs, PSOs and COs are obligatory part of course files, who is prepared by course instructor.

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

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

Response:

Program Outcomes (POs) and Course Outcomes (COs) are measured both directly and indirectly, which is based on the performance of each students outcome. Direct method involves student grades previous assessment and indirect method involves getting the feedback from the students on POs and COs.

1. Direct method

The Students' progress and learning outcomes are monitored through the continuous evaluations, tutorials, periodic tests, quiz, laboratory exercises, projects and assignments. The College conducts three internal assessment tests and a model exam in all courses and reviews the performance of students in the faculty meeting at departmental level and in the meeting of result committee under the chairmanship of the director and Principal.

2. Indirect method

At the end of each semester, student feedback is taken course wise and performance of students is discussed, analyzed and recorded in terms of grades. Slow learner students are encouraged for special coaching classes and bridge courses to identify their problems and solve them. Course exit survey is conducted at the end of each semester by individual course instructor. This in turn helps in arriving at the PO assessment as each CO is mapped with certain POs and PSOs. Besides this, the exit survey is taken from students for indirect assessment of the PO's. The alumni and employer surveys are taken for indirect assessment of the PSOs.

The weightage of **direct** assessment is 80% + **indirect** assessment is 20%

Level of attainment is decided as follows

Less than 59.9% -0 level

60% to 70%- 1level

70% to 80% -2 level

Above 80%-3 level

3.Course Articulation Matrix:

The question papers are taken based on the Bloom's taxonomy and course articulation matrix is prepared for each course by the concerned course instructor. Articulation matrix is the mapping of COs with POs and PSOs, along with that in Course outcome matrix is mapped with Blooms taxonomy levels and POs are prepared at the beginning of each semester by the course instructor and checked, Finally to get the approval by HOD and principal.

File Description	Document
Any additional information	View Document

2.6.3 Average pass percentage of Students

Response: 45.69

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

Response: 90

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

Response: 197

File Description	Document
Institutional data in prescribed format	View Document

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response:

Criterion 3 - Research, Innovations and Extension

3.1 Resource Mobilization for Research

3.1.1 Grants for research projects sponsored by government/non government sources such as industry ,corporate houses, international bodies, endowment, chairs in the institution during the last five years (INR in Lakhs)

Response: 11

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

2018-19	2017-18	2016-17	2015-16	2014-15
5	3	1	2	0

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](#)

3.1.2 Percentage of teachers recognised as research guides at present

Response: 2.99

3.1.2.1 Number of teachers recognised as research guides

Response: 2

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

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

Response: 2.54

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

Response: 36

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

Response: 71

File Description	Document
Supporting document from Funding Agency	View Document
Any additional information	View Document

3.2 Innovation Ecosystem

3.2.1 Institution has created an ecosystem for innovations including incubation centre and other initiatives for creation and transfer of knowledge

Response:

The Stella Mary's College of Engineering evokes a keen sense of respect for the environment and service to all sentient beings. The guidelines for learning at Stella Mary's College of Engineering are purposefully designed to develop a personal paradigm that is devoted to the mastery of needed life skills for success, service, and life-long learning and respect for the planet.

Our goal is to establish the framework for generating engineers who will be committed to developing the best sources of alternative energy systems and develop their own entrepreneurship endeavours in this field.

Our College has a centre for excellence which is aimed to provide research and career advancement through national and international partnership. The facilities at the Centre for excellence include:

Product development: This aims to include students from their second year onwards to develop products to serve humanity, available at low cost.

Training programmes: The Centre for excellence provides both core and software level training to budding engineers by getting the best possible experts who contribute information and ideas to the participants.

Mentoring: Faculty members are assigned to closely monitor the involvement of students and guide them towards the completion of tasks.

Product Promotion: The Centre for excellence helps finding venture capitalists and partners who provide consultancy on product promotion.

Centre for excellence: We have well-furnished space for meetings and trainings in conference and seminar halls.

Office Support: The College provides various facilities to the members of CE which include:

Library: The members through our Centre can avail the library at any time which has a number of books in various fields of engineering.

Fund Assistance: The CE facilitates to receive funds for the training companies after finishing the projects done under the centre of excellence.

Tutorials: Apart from direct training, the Centre also has Google classroom facilities in which tasks are assigned to members with deadlines.

Green Audit: The college emphasizes the importance of green energy and energy saving, student members of the centre of excellence have created a green vehicle which moves within the campus to prevent the emission of harmful gases thereby keeping the environment clean.

Innovative Creation and Transfer of Knowledge to the society: A Biogas production Centre: It produces Biogas using the waste from the college hostel and also the toilet wastes from each department. This stresses the importance of Ecofriendly manners of energy production and keeping the environment clean with minimal byproducts.

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

Response: 73

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

2018-19	2017-18	2016-17	2015-16	2014-15
21	27	19	03	03

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

3.3 Research Publications and Awards

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

Response: Yes

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

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

Response: Yes

File Description	Document
e- copies of the letters of awards	[View Document](#)
Any additional information	[View Document](#)

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

Response: 0.5

3.3.3.1 How many Ph.Ds awarded within last five years

Response: 1

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

Response: 2

File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	[View Document](#)
Any additional information	[View Document](#)

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

Response: 0.34

3.3.4.1 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
4	4	12	4	0

File Description	Document
List of research papers by title, author, department, name and year of publication	[View Document](#)

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

Response: 0.31

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

2018-19	2017-18	2016-17	2015-16	2014-15
11	2	7	2	0

File Description	Document
List books and chapters in edited volumes / books published	[View Document](#)

3.4 Extension Activities

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

Response:

Our institution stimulate the students interest towards the improvement of the society by various community development activities.We have initiated the extension and outreach programmes and motivates the students to participate in the activities to develop their skills such as leadership,team work ,co-ordination,time management etc

1. NSS/YRC
2. Entrepreneurship Development Cell(EDC)
3. Women Empowerment Cell
4. Career guidance programme
5. Ensave Club

Each club is co-ordinated by faculty members and the programmes are organized along with student volunteers.

The NSS/YRC volunteers organize the blood donation camp,voters awareness programme, dengue awareness programme, tree plantation programme, cleaning the neighbourhood areas,etc…Our students have attended the State level workshop scheduled on Community Based Disaster Risk Management(CBDRM) activities.

EDC has been developed to prepare students to identify and address challenges and opportunities.The students from this club have been participated in a training programme conducted in Tirunelveli by Entrepreneurship Development Institute(EDI) to enrich and enhance the students to come out of innovative ideas to do their own business.

Women empowerment cell has been functioning since 2016 for equipping and allowing the girls to

make life determining decisions through the different problems in society by raising their status through higher education,raising awareness and training.Awareness programmes have been given to the girl students through the experienced faculty members.Few faculty members have been allotted to guide and counsel the students in their needs.

Outreach programmes like career guidance for the higher secondary school students were given by our senior faculty members every year.

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

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

Response: 526

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

2018-19	2017-18	2016-17	2015-16	2014-15
137	183	58	71	77

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

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

Response: 28

3.4.3.1 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
11	6	5	5	1

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

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

Response: 27.64

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

2018-19	2017-18	2016-17	2015-16	2014-15
545	96	142	58	78

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

3.5 Collaboration

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

Response: 49

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

2018-19	2017-18	2016-17	2015-16	2014-15
25	19	02	02	01

File Description	Document
Number of Collaborative activities for research, faculty etc	[View Document]

3.5.2 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: 16

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

2018-19	2017-18	2016-17	2015-16	2014-15
6	6	2	2	0

File Description	Document
Details of functional MoUs with institutions of national, international importance,other universities etc during the last five years	[View Document]

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Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

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

Response:

The Institution upholds an optimistic approach towards the enhancement and the upgrading of infrastructure which is based on the curriculum requirement as per the norms of AICTE & Anna University. Technology advancements are made for effectively carrying out the teaching and learning process. A consistent improvement in the quality of knowledge imparted to the students is our major focus thereby the infrastructure also caters to the current needs of students to bring the best out of them. The college is having a digital library, an R&D cell to aid to the aforesaid necessitate. The college also organizes several seminars, Guest Lectures, Workshops, Faculty Development Programmes to enable both students and staff to get to know about the emerging technologies in their respective fields.The campus is Wi-Fi enabled. The Institution has spacious class rooms that are
well-ventilated and well-lit. The campus is spread over an area of 40 acres with a built-up area of 2, 43, 484.24 square feet comprising of buildings with a standard architecture, properly ventilated classrooms, laboratories, auditorium,conference hall, library, seminar halls for every department and a provision of restrooms in each wing of the floor at regular intervals. All the labs are well equipped with good quality equipments as prescribed in the curriculum of Anna University. The institution is a member of IEEE and DELNET.

A well knit transport facility connecting our college with all areas in and around Kanyakumari District is available. A separate hostel with all In-House facilities is provided in campus for boys and girls. A regularly serviced RO Mineral Water supply is available all time in the College and Hostels. Mobile projectors are available in every classroom to promote a visual mode of an ICT enabled teaching and learning process.

SI.No	Room Details	Science & Humanities	Civil	CSE	ECE
1	Lecture hall	5	3	5	3
2	Tutorial hall	1	1	1	2
3	Seminar hall	1	1	1	1
4	Mini Conference hall / Smart Class room	1	1	1	1
5	HOD room	1	1	1	1
6	Faculty room (Gents)	1	0	1	1
7	Faculty room (Ladies)	1	0	1	1

8	Common room (Boys)	1	1	1	1
9	Common room (Girls)	1	1	1	1
10	Toilet students (Boys)	1	1	1	3
11	Toilet student (Girls)	1	2	2	3
12	Toilet staff (Gents)	1	1	1	4
13	Toilet staff (Ladies)	1	1	1	4
14	Drawing Hall	1	0	0	0
15	Department library	1	1	1	1
16	Research Lab	0	1	0	0
17	First Aid Cum Sick room (Boys)	1	1	1	1
18	First Aid Cum Sick Room (Girls)	1	1	1	1
19	Principal room			1	
20	Office room			1	
21	Central Library			1	
22	Accounts manager room			1	
23	Director room			1	
24	Chairman room			1	
25	CEO room			1	
26	Admission room			1	
27	Public relative officer room			1	
28	Stationary store			2	

29	Dining room	2
30	Corporate relative officer room	1
31	Sports club	1
32	Counselling room	1
33	IQAC cell-1	1
34	IQAC cell-2	1
35	Cafeteria	1
36	Exam hall	2
37	Exam OFFICE	1
38	Conference hall	1
39	Yoga centre	1
40	Indoor (sports room)	1
41	Product Design and Development cell	2
42	Maintenance Room	1
43	Security Room	2
44	Power Room	1

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

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

Response:

To make every student an all-rounder is our primary focus and thereby an equal importance is given to

sports and cultural activities. The college has a Sports club through which sports activities both outdoor and indoor are encouraged and carried out. The availability of a large playground supports the daily practice given for the outdoor games such as Ball Badminton, Tennis, Throw Ball, Cricket, Kabaddi, Foot ball, Hand ball, Volley Ball, Athletic events etc. We have special trainers for indoor games such as Badminton, Table Tennis, Chess etc who would train our students and make them qualified to take part in any inter-college level or zonal level tournaments conducted in and around the state. Modern Multi Gyms for boys and girls students and for staff is available in their respective hostels. Students have participated in Zonal level sports events organized by Anna University and have bought laurels to the institution, winning Medals, Prizes and trophies.

The NSS unit of the college is on the go with one unit 62 (48 Boys and 14 Girls) volunteers. For the benefit of society with poor background special camps such as Voter's ID Awareness Camp, Blood Donation Camp, Dengue Awareness, Community-Based Disaster Risk Management (**CBDRM**) and Deworming Day are organized episodically. Other than these camps, Awareness Programs on Environment, Tree Plantation and Healthcare are also being organized. The college also has a division of both Youth Red Cross and Red Ribbon Club. They organize various awareness programs such as AIDS Awareness Program, Eye Camp, and Literary Awareness Program etc., in the rural areas for their upliftment.

For ensuring safety water to all, an RO drinking water unit has been established in the campus. Vehicle facility to attend any medical emergencies to nearby hospital is also available 24 hours on-campus. Hygienic food and beverages at reasonable cost are available at our college Cafeteria.

Yoga Centre:

Yoga is a mode of mental relaxation that helps the students to relieve their stress and perform well while facing their academic challenges. It imparts the importance of human body elements such as Brain, Conscience, Mind and Body into every soul that practices it. Our Institute is providing Yoga sessions by professional trainers to students.

Cultural Activities:

The students are motivated to participate in various cultural activities inside and outside the campus as cultural activities are form an essential part of the study. By this way personal growth is promoting the learning skills and making they stand with confidence in the society meeting people from different backgrounds and cultural traditions. The students also actively take part in the cultural activities organised during the annual day function of the Institute every year.

The Institute has Energy Saving Awareness Club, Literary Club, Cultural Club etc., through which various activities are conducted to get them into the field, work hard and harvest the benefits out of it by bringing out their hidden potentials taking part in competitions which in turn makes them excel in their skills.

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

4.1.3 Percentage of classrooms and seminar halls with ICT - enabled facilities such as smart class, LMS, etc

Response: 100

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 40

File Description	Document
Number of classrooms and seminar halls with ICT enabled facilities	[View Document](#)
any additional information	[View Document](#)

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

Response: 63.88

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

2018-19	2017-18	2016-17	2015-16	2014-15
145	158	578	1043	650

File Description	Document
Details of budget allocation, excluding salary during the last five years	[View Document](#)
Audited utilization statements	[View Document](#)

4.2 Library as a Learning Resource

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

Response:

Library is the soul of our educational institution. The library is being constantly enriched by the acquisition of latest books and journals keeping in pace with changing times, to enhance the advancement of the University's academic activities. The Central Library caters to the information needs of the institute's faculty, students, staff, research institutions and industries. Our Institute library has more than 16,000 books covering all disciplines of engineering.   Under the web consortium, the library provides on-line

access to a large number of full-text journal databases from various publishers. These e-journals are accessible on intranet to campus users only.

The library also has popular newspapers and weekly magazines. Library automation is done by Info library software version 13. Digital Library Facility with full access is provided on campus via the institute's Intranet. OPAC (Online Public Access Catalogue) facilities are available to the users to locate library books/materials easily. The library has 05 dedicated systems for digital library and the access is made easy for the students. Printers are available for public usage. If necessary, students and staff can take the books for photocopy and return them on the same day.

Content Management system for e-learning is available. Participation in Resource sharing networks/consortia is done by DELNET. Bar-coded Identity card issued to the members shall be maintained in the Library for all the transactions.

We have a Library Advisory Committee, with Principal as the Chairman, Director and Heads of Department are the Executive Members, Librarian as the secretary and faculty are the members. The committee functions as a bridge between staff, students and library. The committee meets once in a semester and the Library Advisory Committee monitors the smooth working of the library. Books required as per AICTE norms is sought from the departments every year and purchased as per the norms of the Institute. Journals requirements suggested by the Heads of Departments are also discussed in the meeting and recommended accordingly.

Separate reference section is available with dictionaries and encyclopedia, general books and books related to competitive exams. UG project reports are distinctly available in the library. University question banks are made available for reference. The students are permitted to take photo copy of the required material at nominal cost.

Provisions in the timetable are made to enhance students' library usage and reading habit. The subject-wise name boards are located inside the library for identifying the specialized books easily. The library has a notice-board to display the library statistics. Library information is also available in the college website and academic calendar. The library staff members assist the users in searching for the desired information available in the library automation.

File Description	Document
Any additional information	View Document

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

Response:

UG project reports,PG theses and our institution's Ph.D holders' theses are distinctly available in the library. Department of Library manifestly preserves all these which are open to all students for their reference.

A reference section with a collection of latest editions, encyclopedia, rare copies of books, books for competitive examinations are made available to the users. IP-based facility is availed for accessing the e-resources. Using OPAC, the user can search the accessibility of books based on the title and author's name. Issue, return and tracking of books are realized through the bar code printed in the book and identity card of staff and students. The institution has membership with DELNET for library resource-sharing.

DETAILS ON LIBRARY BOOKS AND JOURNALS

Books:

Sl. No.	Total No of Titles	Description	No. of Books (Volumes) available
1.	3140	Science and Humanities	2658
2.		Engineering	12153
3.		Others (Psychology and Fiction)	1574
Total			16385

e-Journals:

Sl. No.	Name of the e-Journal Publisher	Name of the relevant courses	No. of Journals	
			National	International
1.	DELNET	UG 1 (Computer Science and Engineering)	35	50
		UG 2 (Electrical and Electronics Engineering)	24	06
		UG 3 (Electronics and Communication Engineering)	06	12
		UG 4 (Mechanical Engineering)	11	16
		UG 5 (Civil Engineering)	38	11
		PG 1 (Computer Science and Engineering)	15	09

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

4.2.3 Does the institution have the following:

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

A. Any 4 of the above

B. Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

Response: B. Any 3 of the above

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

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

Response: 15.2

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

2018-19	2017-18	2016-17	2015-16	2014-15
23	0	25	24	4

File Description	Document
Details of annual expenditure for purchase of books and journals during the last five years	View Document
Audited statements of accounts	View Document

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

Response: Yes

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

4.2.6 Percentage per day usage of library by teachers and students

Response: 39.93

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

Response: 355

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

4.3 IT Infrastructure

4.3.1 Institution frequently updates its IT facilities including Wi-Fi

Response:

The institution has over 420 Personal Computers installed with various operating systems in the CAD lab of Civil and Mechanical Departments, Mechatronics Lab, Micro Processor Lab, Power system simulation Lab, Micro Controller Lab, Big Data Lab., Computing lab of Science & Humanities and Department of Computer Science, etc.

All the PCs have advanced configurations and all advanced software that would cater to the needs of the students and the norms of Anna University.

Smart Class rooms equipped with Projectors and screen are also available for all the departments.

Wi-Fi hotspots with extenders are provided to cover the wireless range throughout the college. Internet connection is given to all the computers and all the necessary devices for the connectivity are being installed.

The IT & related needs of the campus such as Hardware & Networking, Software Development, Website designing & hosting, Email solutions, SMS solutions, etc. are taken care of by a separate team with in-house staff.

The entire campus is Wi-Fi enabled with an internet connectivity speed of **50 Mbps provided by AT Broadband.**

Wi-Fi Access Points were installed in the following locations. Depending on the requirement these Wi-Fi access points are constantly updated at cyclic intervals.

Each department has a separate Computer Centre. To impart advanced language skills such as Listening, Speaking, Reading and Writing that plays an important role in their attitude round of placement

we have installed Learn to speak English Deluxe in the language lab.

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

4.3.2 Student - Computer ratio

Response: 2.1

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

4.3.3 Available bandwidth of internet connection in the Institution (Lease line)
>=50 MBPS

35-50 MBPS

20-35 MBPS

5-20 MBPS

Response: >=50 MBPS

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

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

Response: Yes

File Description	Document
Facilities for e-content development such as Media Centre, Recording facility,LCS	[View Document](#)

4.4 Maintenance of Campus Infrastructure

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

Response: 27.63

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
209	204	128	102	67

File Description	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:

The maintenance of the infrastructure is also being given much importance and there are quite a lot of personnel given the responsibility of maintaining all means of infrastructure with regard to buildings, furniture, transport and generator operation in case of power failure or power shut down. Complaint registers are regularly checked in for maintenance for various services like electrical, plumbing, housekeeping etc. The report of the breakage would be immediately reported and the need for maintenance would be regularly reported to the authority concerned and seen to that it is rectified.

Maintenance of sensitive equipment, Power and Water supply:

Sl. No	Service Department	Number of St
1	Electrical works	3
2	Transport	13
3	Computer servicing	1
4	House keeping	10
5	Supervisor	3
6	Plumber	4

Maintenance of Electrical and Electronic Equipments

At the end of every semester after the university laboratory exams are over a regular and a thorough check up of all equipments is carried out. If the repair that has to done is a minor one, it is being done by the lab instructors itself or if needed the faculty member would also assist in doing it. If the repair to be done is a major one it is being outsourced as per the norms and procedures followed by the institute.

The trainer kits that are faulty are serviced by the supplier companies as specified by the head of the department in time which would be forwarded to the accounts section for further processing, to get the repair works done in time.

Also the measuring instruments are calibrated regularly to validate their performance.

Any maintenance relating to personal computers is done and taken care of by the System Administrator and the Computer department.

The stock is being verified by an internal audit done by staff members from other departments at the end of every year and the audit report is submitted to the Principal.

Utilisation and maintenance of Computer Laboratories:

Other than the curriculum designed for programming languages, bridging of the gap in the curriculum is done by the various value added courses being undertaken in these labs. Access to internet is provided in the lab even after college working hours.

Antivirus and firewall have been installed to ensure that security of the software and the system.

Breakdown maintenance includes the failure that occurs due to boot failure or any problem with the SMPS and this also being recorded in a register. In case if the problem is a minor one, the rectification will be done by the technical support staff of the lab itself. Else, we would prefer the vendor's support if the problem seems to be a persistent one or a major one.

A cyclic maintenance depending on the need for the cleanliness to be maintained is done regularly by cleaning the lab spaces, library, toilets, floors, hostels etc. with the frequency of verification done on a daily, weekly, monthly or yearly basis.

Stock verification is done for the equipments available and discarded, by means of a scrupulous stock verification process which is carried out with the help of a faculty team from the other department and the report is submitted to the principal.

Maintenance of Electrical and Electronic Equipments:

At the end of every semester after the university laboratory exams are over a regular and a thorough check up of all equipments is carried out. If the repair that has to done is a minor one, it is being done by the lab instructors itself or if needed the faculty member would also assist in doing it. If the repair to be done is a major one it is being outsourced as per the norms and procedures followed by the institute.

The trainer kits that are faulty are serviced by the supplier companies as specified by the head of the department in time which would be forwarded to the accounts section for further processing, to get the repair works done in time.

Also the measuring instruments are calibrated regularly to validate their performance.

Any maintenance relating to personal computers is done and taken care of by the System Administrator and the Computer department.

The stock is being verified by an internal audit done by staff members from other departments at the end of every year and the audit report is submitted to the Principal

S.No	Category	Capacity	Quantity available	Main
1	Generator for constant Power Supply	63 KVA	1	Sree Sai D (Kirlosk
2	RO plant for constant Water supply	250 Litre per hour	7	Electricia
3	UPS for Computers Back Up	10 KVA	9 (All Computer Labs)	Sri Ragav Control

File Description	Document
Any additional information	View Document

Criterion 5 - Student Support and Progression

5.1 Student Support

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

Response: 48.7

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

2018-19	2017-18	2016-17	2015-16	2014-15
429	412	365	300	75

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

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

Response: 66.7

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

2018-19	2017-18	2016-17	2015-16	2014-15
598	560	486	311	162

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

5.1.3 Number of capability enhancement and development schemes –

    1. For competitive examinations

    2. Career counselling

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

A. 7 or more of the above

B. Any 6 of the above

C. Any 5 of the above

D. Any 4 of the above

Response: A. 7 or more of the above

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

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

Response: 0

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

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

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

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

Response: 23.09

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

2018-19	2017-18	2016-17	2015-16	2014-15
610	225	79	1	3

File Description	Document
Details of the students benifitted by VET	View Document
Any additional information	View Document

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

Response: Yes

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

5.2 Student Progression

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

Response: 26.38

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
85	68	60	0	0

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

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

Response: 10.55

5.2.2.1 Number of outgoing students progressing to higher education

Response: 21

File Description	Document
Upload supporting data for student/alumni	View Document
Details of student progression to higher education	View Document
Any additional information	View Document

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

Response: 20

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

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

5.2.3.2 Number of students who have appeared for the exams year-wise during the last five years

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

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

5.3 Student Participation and Activities

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

Response: 7

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

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

File Description	Document
Number of awards/medals for outstanding performance in sports/cultural activities at national/international level during the last five years	<u>View Document</u>
Any additional information	<u>View Document</u>

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

Response:

Stella Mary's college of Engineering gives importance to extra circular and co-curricular activities also, for the all-round development of the students. We train our students to excel in technical skills, updating knowledge and personality. An association is formed in all the branches for this purpose and has a president, secretary, treasurer and office bearers. The association actively organize seminars symposiums, competitions, conferences and workshops. Students involve themselves in commemorating all important events like Independence Day, Republic day, Teachers day, National sports day. College day and sports day are celebrated enthusiastically. Apart form this the college also offers club activities which includes literary club, Youth red cross, NSS.

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

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

Response: 21

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

2018-19	2017-18	2016-17	2015-16	2014-15
27	29	25	0	24

File Description	Document
Report of the event	[View Document](#)
Number of sports and cultural activities / 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 non financial means during the last five years

Response:

In our institution, the Alumni Association was fashioned in the year 2018 under the title "STELLA MARY'S ALUMNI ASSOCIATION". Our Principal Dr.R.Suresh Premil Kumar welcomed the gathering and inaugurated the alumni association The significance of alumni association in an institution and its benefits were explained , Alumni council members were selected, such as President, Secretary, Treasurer. Kishore Dey from Mechanical Engineering explained the importance of piping, autocad,2D pipes etc. Sabarish from ECE shared the need of soldering and its importance in various field and so on. Alumni suggested that they were ready to provide corporate training and programming skills to our institution.

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

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

? 5 Lakhs

4 Lakhs - 5 Lakhs

3 Lakhs - 4 Lakhs

1 Lakh - 3 Lakhs

Response: <1 Lakh

File Description	Document
Alumni association audited statements	[View Document]()

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

Response: 2

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

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

File Description	Document
Number of Alumni Association / Chapters meetings conducted during the last five years	[View Document]()
Any additional information	[View Document]()

Criterion 6 - Governance, Leadership and Management

6.1 Institutional Vision and Leadership

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

Response:

Vision

To emerge as a premiere institution, acknowledged as a centre for excellence imparting technical education, creating technocrats who can address the needs of the society through exploration and experimentation and uplift mankind.

Mission

To provide an education that transforms students, through rigorous course-work and by providing an understanding of the needs of the society and the industry.

Recognized by All India Council for Technical Education, the institution is approved by the Government of Tamil Nadu and affiliated to Anna University, Chennai. The Governance of the institution accords strictly with the Vision and Mission. Intending for better governance and performance, the system is effectively decentralized. The Governing Council includes the Chairman of the institution, the Vice Chairman, the Chief Executive Officer, the Director and the Principal which takes the major decisions that have a bearing on the function and the goal of the college.

The staff council of the college is headed by the Principal, with all the HoDs as members who would ensure the appropriate implementation of the directions given in accordance with the decision made by the Governing Council.

The Principal, who is the academic head of the institution, is given enough freedom by the Management to function in order to reach the vision and mission of the institution. HoDs are entrusted with department level authority. The responsibilities and the time to time instructions are communicated through regular department meetings and staff meetings. The office administration of the College is headed by the Principal.

The Institute follows a **perspective plan** for its development. The perspective plan is developed by the Principal under the guidance of the Governing Council, in discussion with the HoDs of the various departments. The perspective plan helps to streamline the various processes like evaluating methodologies of the teaching-learning process, research progress, infrastructure facilities etc. The academic calendar is prepared based on the academic schedule given by the affiliating university. All the planning and execution is monitored regularly in order to ensure the growth of the Institution.

The scope of the institution is also well explored in terms of learning and growing. The institution signs MoUs with the various organizations for promoting institute-industry interaction. Provisions are made for the development of infrastructure for research activities for motivating the faculty towards Research, Patents, etc.

A culture of **participative management** is promoted consistently by the institution. Committees are framed for the implementation of all its decisions and resolutions, comprising faculty members and students. The HODs also make decisions in directing the implementation of the action plan in the department. The department faculty members coordinate in the implementation of the strategies of the department. Therefore, at all levels participative management is followed.

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

6.1.2 The institution practices decentralization and participative management

Response:

The case study of the Academic Calendar planning

The institution follows the methodology of a decentralized governing structure. Each department head has been granted with the power to decide over the activities and delegate the assignments to the staff members. The responsibilities of finalising the timetable and subject allocation, purchase and maintenance of equipment and consumables, arranging guest lectures, workshops, conferences, symposia, putting forth necessary recommendations for industrial visits, in-plant trainings, internships and MoUs are taken up the department. A culture of participative management is being practiced effectively that provides room for the students and also the faculty to put forth their choices and opinions for the betterment of the institution. A practice of decentralisation of the academic activities is followed in which the final decisions are taken, based on the conclusions from the discussions made in the class committee meetings, department meetings, mentor meetings and Heads' meetings with Principal. The Principal takes up the role of coordinating the departments, administration and the management. Participative management ensures the quality of planning and implementation of all the activities uniformly in the institution which in turn provides widespread scope of a smooth cooperation among the departments as a team.

At every academic year's end, the Academic Calendar for the next academic year is prepared. The Principal plans the Academic Calendar in a meeting convened with the Heads of the various departments in which the Director, CR department, Librarian and the Director of Physical education will also be a part. The planning will be based on the academic schedule received from Anna University, Chennai. The following will be the major points of discussion.

- The forthcoming semester's re-opening date
- The forthcoming semester's working days
- Founder's Day, Sports day, College day
- Portion completion date for each unit
- Internal and model exam dates
- Commemorating the important days
- Sports events
- Festive celebrations
- Graduation Day

The above mentioned days are common for all the departments.

The schedule for the following activities varies department-wise. The responsibility of scheduling the days and confirming the expert members for these departmental activities is taken up by the head of every department.

- Department Symposium/Association activities
- Club activities
- Guest Lectures
- Placement Training
- FDPs/Workshops/Conferences
- Video Classes
- Industrial Visits

The academic calendar helps in planning both academic and non-academic activities. When analysed at the end of every semester, it would be seen that 80% of the planning would be implemented as per schedule and the rest 20% would be rescheduled owing to certain unanticipated holidays or happenings.

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

6.2 Strategy Development and Deployment

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

Response:

The institute has a **strategic plan** for a period of five years starting from the academic year 2015-2020 which includes getting permanent affiliation for all UG & PG programmes by 2015-2016, introduction of College ERP by 2017, improving the teaching-learning process, strengthening the campus facility and support systems, instating the R&D cell and center for innovation by 2018, getting NAAC accreditation by 2019, getting NBA accreditation by 2020, providing Personality development programmes for the students and enhancing the industry institute collaborations and R&D activities.

One of the strategic plans in the academic year 2017-2018 was initiated by the IQAC of the institution is to provide personality development program for the students. The **Personality Development Program (PDP)** for the students was conducted through the placement cell. The PDP is being conducted for all the students every year from then on, from the first year to the final year. Professional trainers visit the campus to train the students of all the departments, semester wise. A batch-wise splitting is done based on the training session to be handled and various sessions on topics like teamwork, time management, communication skills, professionalism, vocabulary, critical observation, conflict resolution and attitude based technical knowledge are conducted.

The PDPs prepare the students with the skills needed to face the corporate scenario and also gives an insight into the corporate world. Besides Soft skills training, Aptitude Training and Technical training is

also imparted to enrich them technically and help one know his/her strength and weakness.

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

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

Response:

The **Governing Council** at Stella Mary's College of Engineering comprises of a very dignified group which is totally committed in monitoring the continuous development and growth of the Institution. The governing council includes the Chairman, Vice-Chairman, CEO, Director and Principal. The Governing Council takes up the key responsibility of monitoring the effective implementation of every activity associated with the institutional strategic plan. All bodies in the institution including the management, the department heads, the faculty, the non-teaching staff and the students work as a team to to strengthen the culture of excellence.

The Principal governs the academic and administrative departments of the college. The administration of the academic and non-academic activities is carried out by the various Cells and Committees formed and authorized by the governing council. The Governing Council meets twice a year and interacts with the faculty, students and the Corporate Relations team to identify the lapses and the areas where improvement is required to raise the quality of knowledge delivery at Stella Mary's college of Engineering with the support of the faculty members and administrators in the Institution.

The **staff selection committee** is chaired by the Principal; HoD's are also a part of the selection committee to ensure transparency in the selection process. The selection process gets accomplished upon the approval of the governing council.

The **IQAC** prioritizes to obtain the best quality outcome out of every activity performed in the campus.

Faculty members act as coordinators for projects, exam cell, Class in-charges, Lab in-charges and placements in addition to playing specific roles in the administrative bodies too.

Rules, policies, recruitment procedures, promotional policies

- Rules and policies are as per the AICTE and Anna University Chennai policies.
- Promotions are given to staff members who excel in academics and research.

Recruitment Procedure

Stella Mary's College of Engineering follows a recruitment procedure. The Institute draws a good

number of applications for the recruitment. The recruitment procedure is as follows:

1. Submission of staff requirements by HODs to the Principal.

2. Advertising the staff requirements in leading newspapers.

3. Constitution of the selection committee.

4. Short listing of applications received.

5. Calling eligible candidates for interview.

6. Discussion with candidates to evaluate their potential and skills.

7. Selection based on the performance of candidates.

8. Issue of appointment orders.

9. Reporting to duty on the mentioned date.

Internal compliance committee

The institution has framed the anti-sexual harassment committee comprising of senior faculty members and students for prevention any act of sexual harassment. The cell also ensures the smooth stay of students who face challenges owing to their caste, creed, religion and physical disabilities.

Student grievance redressal committee

- A redressal committee functions in the institution. Following are the functions of redressal committee.
- To receive the grievance in person
- To analyze and examine the nature of grievances
- To deliberate with the members of committee and call for remarks if necessary
- To resolve the issues impartially

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

6.2.3 Implementation of e-governance in areas of operation

    1.Planning and Development

> 2.Administration
> 3.Finance and Accounts
> 4.Student Admission and Support
> 5.Examination

A. All 5 of the above

B. Any 4 of the above

C. Any 3 of the above

D. Any 2 of the above

Response: B. Any 4 of the above

File Description	Document
Screen shots of user interfaces	[View Document](#)
ERP Document	[View Document](#)
Details of implementation of e-governance in areas of operation Planning and Development,Administration etc	[View Document](#)

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

Response:

Many activities initiated by several bodies and committees have been implemented in the college. One of the important bodies is the Internal Quality Assurance Cell (IQAC). In one of the meetings, the Outcome Based Education (OBE) was initiated. An awareness programme on the importance of Course Outcomes (COs), Program Educational Objectives (PEOs), Program Specific Outcomes (PSOs), and Program Outcomes (POs) was provided to the heads, faculty and students.

A learner centric model of the Teaching learning process adopting outcome based education (OBE) and evaluation methods was brought into the system**.** OBE acknowledges the students for the knowledge, skills and attitudes they have gained. The institution clearly defines its vision, mission, strategies, objectives and outcomes. OBE based learning is clearly executed in all the programmes in terms of defining the respective programme objectives, programme outcomes and programme specific outcomes. All the courses in each programme are defined with a set of course objectives and outcomes. The preparation of course file for each course also includes the Department vision, mission, course syllabus, individual time table, program objectives, program outcomes, various mapping matrices, course plan, unit wise material, direct assessment and indirect assessment through course exit surveys collected from students and the CO-PO attainment sheets. The course outcomes were prepared on the basis of blooms taxonomy. The Course outcome attainment was assessed using Direct and Indirect methods.

Based on the students' performance in the internal assessment tests, model exams and assignments the Direct method is evaluated providing a strong validation of the knowledge acquired by the student in that particular course. The direct assessment tools are Internal assessment (1, 2, 3), Assignment for all the courses, and Model exam. Target levels of attainment of Course Outcomes (COs) are set by the Programme Advisory Committee (PAC); Course is delivered and the actual attainment of COs is determined using Internal Assessment Test 1, 2, 3 (IAT1, IAT2, IAT3) and model exams. The evaluation of the attainment of POs and PSOs is based on the mappings from COs to POs and PSOs. The POs & PSOs Attainment level will be 80% of direct assessment.

Indirect methods assess the suggestions or thoughts about the students' knowledge or skills and they are valued. Program Exit Surveys evaluate the attainment of POs and PSOs. The Attainment level of the POs & PSOs will be 20% of the indirect assessment. The IQAC and Programme Advisory Committee evaluate the achievement of POs and PSOs. With the implementation of OBE the institution is in the preparatory phase for NAAC and NBA accreditations.

File Description	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

Response:

Welfare measures for teaching staff

Our management is very much considerate towards its faculty and never fails to take some welfare measures for the teaching staff members.

- Provident Fund
- Free transport facilities
- Medical leave
- Maternity leave
- Waiver of fees for children of the institution's staff
- Supporting for the education of the children of the teachers in the institution's group
- Marriage gifts with the sanction of one week leave
- Gifts and mementoes during Teachers' Day celebrations
- Sponsorship for attending conferences, workshops and FDPs
- Incentives for publication of papers / research articles
- Cash awards for achieving academic excellence / 100% pass
- Special Study Leave (SSL) to pursue higher education.

Welfare schemes for non-teaching staff

- Support for their children in education
- Marriage gifts for wedding along with one week leave
- Relaxation-medical leave / maternity leave
- Free transport facilities
- SSL for higher studies
- Incentive for attending orientation programmes, workshops and conferences
- Incentive for dress materials for non-teaching staff

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: 6.84

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
8	4	10	1	2

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

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

Response: 2

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

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

File Description	Document
Details of professional development / administrative training programs organized by the Institution for teaching and non teaching staff	View Document
Any additional information	View Document

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

Response: 8.29

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

2018-19	2017-18	2016-17	2015-16	2014-15
7	10	8	4	2

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

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

Response:

The Stella Mary's Management evaluates the performance of the faculty based on their teaching, research, contribution in teamwork, participation in co-curricular/extracurricular activities and publication works. Outstanding staff members are awarded and appreciated. The appraisal system in Stella Mary's motivates the staff to give their best effort in making students achieve excellence in academics and their intrapersonal skills. The management and administration strives hard to maintain staff retention and this achievement is a considerable one.

Our Appraisal system considers the following factors in the appraisal programme for our Teaching Staff

- Participation in Conferences, Workshops, Faculty Development Programs and others to enhance their skill and potential.

- Adopting innovative teaching methodologies.
- Pursuing doctorate and other higher learning programmes.
- Research activities.
- University Examination Results.
- Publication works in the Scopus indexed/impact factor/e - journals & conference proceedings.
- Publication of chapters in books and publication of books
- Carrying out sponsored projects
- Mentoring and counselling methods adopted in student welfare.
- Feedback from HoD and Feedback from students
- Good rapport with colleagues.
- Lively involvement in team work
- Rewards for outstanding achievements in their higher education, while working with Stella Mary's
- Community services through the institution and outside the institution

Our Appraisal system considers the following factors in the appraisal programme for our Non-Teaching Staff

- Active participation in skill up gradation through Orientation Programmes, Refresher Course, Short Term Courses and Faculty Development Programmes
- Feedback from the concerned department head, teaching staff and Principal
- Involvement in team work
- Work Ethics
- Participation in Community services

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

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Response:

The management trust office (NOVA Educational Trust) deputes officials for performing the internal audit and the reports which are usually obtained before the closure of accounts will be obtained before external audit. The statutory auditors will conduct the audit on the 30th of June of every year.

The necessary action will be taken to regularize the accounts and the documentary evidences will be collected for the credit balance, compliances of T.D.S. and Statutory Formalities and Reconciliation of Unit wise balances with the Control Accounts and Bank Reconciliations. The copy of internal audit report covering all matters relating to the managing of accounts is preserved.

The final audit report prepared by the auditors after the external statutory audit is submitted to the college financial management. The consolidation of the findings of the institution and the annual return will be submitted to the relevant authorities like Income tax authorities, Registrar of Societies, Tamil Nadu and to the other related authorities concerned etc.

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

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

Response: 0

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

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

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

Response:

Institution runs under NOVA Educational Trust where the students are offered with Institutional scholarship. We follow the norms followed by Tamil Nadu Government of higher educational. Since AICTE approval, 65% seats are filled up by students through Anna University Counseling (TNEA) and the remaining 35% are occupied through the Consortium of Self Financing Professional, Arts and Science Colleges in Tamil Nadu.

- We do not hold any debt and we run our institution in a financially secure track through the NOVA educational trust accelerators.

- Extra-curricular activities are also focused in our institution. We pay great attention towards the project and innovative works of students with creative skills, through the Centre of Excellence.

Optimal Utilization

- NOVA educational trust has signed and kept up 'MoU's with few industrial sectors and rewards are given through 'NOVA' educational trust for best projects. Our infrastructure is maintained and upgraded in such a way that students are able to learn in an agreeable atmosphere.
- Faculties in our institution are exposed to conferences, workshop and Faculty Development Programmes (FDPs), where the teaching level of our faculty is upgraded.

- To ensure a sufficient care is taken to maintain cleanliness in the campus and the allotted fund for this isjudiciously utilized.
- The institute makes use of the policy of bio waste management effectively as it provides income.

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

6.5 Internal Quality Assurance System

6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes

Response:

PRACTICE 1: Evaluation scheme automated for course attainment calculations

PRACTICE 2: The role of Centre for Innovation in making the students to do projects at all levels

PRACTICE 1: Evaluation scheme automated for course attainment calculations

Outcome Based Education is a quality initiative whose key criterion is the attainment of Course Outcomes. The attainment of the course outcomes for a particular course is assesses based on two tools namely

1. Direct assessment
2. Indirect assessment

The direct assessment is based on the internal assessment exams and the model exams and the indirect assessment is based on the course end survey made. A weightage of 80:20 is given (direct : indirect).For direct assessment we have fixed 50% of weightage to be given to all the internal assessment exams consider altogether.35% of weightage is given to model exam and 15% of weightage is given to assignments. Finally the average of the attainment value is calculated and is made up for 80 %.

The indirect assessment is made for the entire class through feedback forms issued to students and the feedback is consolidated under three criteria as strong, medium and low which carries a score 3, 2 and 1 respectively. Finally the average of the attainment value is calculated and is made up for 20 %.

To get the overall attainment both the values rounded to 80:20 ratio are added.

This process of evaluation of course attainment has been carried out in Microsoft Excel and it seemed to be a complex process wherein minor errors can affect the whole calculation. Hence, an automation of this process has been done and the process has been made easy to make a micro level analysis of the evaluation of course attainment.

PRACTICE 2: The role of Centre for Innovation in making the students to do projects at all levels

The top management shows much concern about the quality of the graduating engineers from Stella Mary's and takes utmost efforts focussed towards imparting quality education at all levels of their study in campus.

For this an initiative was made by the IQAC through the Centre for Innovation to create awareness among the students about the skills that they have to possess as per the expectations of the industry that is totally focussed towards hiring candidates who possess the utmost technical and professional skills needed to be offered a placement in their companies. The students are initially given the option to choose a task of their own choice among the tasks given and were asked to report for a review on the target date. For those who were able to turn up for the review with some findings of their own are appreciated and encouraged to move to the next higher level. This knowledge to code is supported through participative mode of learning using video lecture sessions being shared through Google classroom. A follow up discussion session would also be conducted and the difficulties in the tasks would be discussed and rectified.

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

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

Response:

Content beyond the syllabus and Grasshopper online programming

The teaching learning process is continuously scrutinized for implementation of quality initiatives in the system and improvisation in its outcome.

- Apart from the regular class room lectures by the faculty members on contents beyond syllabus of all the courses, for specific courses the students are given opportunities to attend guest lectures from industrial experts who would expose the industry requirement to the students and equip them with necessary skills for placement. This in turn helps in developing the necessary soft skill and hard skills required for the students and narrows down the gap between the institute and the industry requirement.
- Placement training through Grasshopper, an online programming is introduced by the Centre for Innovation with a view to help the students for better placement. Grasshopper is an initiative facilitated by the IQAC through the Centre for Innovation with the support from the Corporate Relations Department.

Video Classes and NPTEL online courses

The IQAC is instrumental in implementing new ventures for enabling the learners, acquiring knowledge beyond the syllabus.

- Other than class rooms lectures, videos are played for specific topics from the syllabus and beyond the syllabus in the respective domains. Through these video classes students gain a thorough understanding of the specific topic through visual means with maximum reach and this encourages them to focus on other related co-curricular activities including projects too. The students show much interest in this visual based participative way of learning.
- The students and faculty members are encouraged to register for the NPTEL (National Programme on Technology Enhanced Learning) online courses initiated by IITs and IISc. If a registered candidate (staff or student) scores above 80% in the final examination, the management repays Rs.500/- and Rs. 1000/- for those who score more than 90% towards the examination fees paid by them.
- Post-accreditation IQAC will be reconstituted as per the NAAC guidelines. However, the institution reviews its teaching-learning process, structures and methodologies of operations and learning outcomes at periodic intervals through its Staff Council, Internal Assessment Committee of each department, and Centre for innovation team, etc. Students' Internal assessment and attendance is monitored and evaluated at periodic intervals by the Internal Assessment Committee (HoD and Class In charges). The Staff Council reviews the results and plans activities for the academic growth of the institution at large (Principal and HoDs).

The various other quality initiatives for improving the teaching-learning process taken are

- Organization of seminars, workshops and training for students.
- Conduct of value-added courses for students.
- Use of ICT in teaching and learning encouraged.
- Feedback from students, alumni and parents on curriculum has been formally taken and the data analyzed.

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

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

Response: 3.4

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

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

File Description	Document
Number of quality initiatives by IQAC per year for promoting quality culture	[View Document](#)
Any additional information	[View Document](#)
IQAC link	[View Document](#)

6.5.4 Quality assurance initiatives of the institution include:

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

A. Any 4 of the above

B. Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

Response: C. Any 2 of the above

File Description	Document
Details of Quality assurance initiatives of the institution	[View Document](#)
Any additional information	[View Document](#)
Annual reports of institution	[View Document](#)

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

Response:

- The growth of infrastructure in the last five years has been massive. The two storey new block with four wings each for a department in fully finished condition was constructed and is being utilised.
- Students have bought laurels winning the Anna University Zonal title, for boys in Table Tennis, consecutively for the past two years and the girls team won the runner up this year.
- The EDC was initiated for promoting students' interest towards project and most of these projects

are being sponsored by our management.

* Students are equipped and encouraged to participate in Hackathon conducted by MHRD.
* Automation of the course attainment evaluation system done.
* Getting digitalized in more number of academic operations.
* Discussions are being made from the top level management to the bottom administrative levels, to identify the best practices and follow it year after year.
* Regular feedbacks were taken in the past from students and shared with teachers to improve the curriculum delivery. Since the active functioning of Internal Quality Assurance Committee from 2018- Feedback system has been formalized and structured. Students, parents and alumni feedback is collected on curriculum and infrastructure.
* As an outcome of the Students' feedback regarding infrastructure, mapping of college facilities have been initiated.
* Students' request for a dedicated time slot everyday to pursue co-curricular and extra-curricular activities or in the Centre for Innovation was acknowledged and every afternoon students were allowed to spend their quality time from 3:20 pm to 4:20 pm.
* Dissemination of prominent findings on quality parameters and feedbacks in the action plan meeting**.**

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

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

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

Response: 9

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

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

File Description	Document
Report of the event	[View Document](#)
List of gender equity promotion programs organized by the institution	[View Document](#)
Any additional information	[View Document](#)

7.1.2

1.Institution shows gender sensitivity in providing facilities such as:
 1.Safety and Security
 2.Counselling
 3.Common Room

Response:

Gender Sensitivity

 1.**Safety and Security:**

The institution provides safety and security to all the Students and Faculty.

CCTV Cameras:

CCTV cameras are installed at various points in girl's hostel to record any other suspicious moving in the hostel. In case of any untoward incidents the video recordings can be retrieved for verification and this facility has proved to be of immense help in resolving few disputes

Anti-Ragging Committee:

To prevent in disciplinary activities among the students' anti-ragging committee is formed. The staff and students of this committee will monitor the students.

To avoid ragging in hostel first year students are given separate rooms(in separate floors)

Internal Compliance Committee (Women Empowerment Cell).

To address any issue regarding the safety of girl students and ladies staff members we have formed a women empowerment cell.

Awareness program:

Special awareness programmes are conducted periodically by the Women Empowerment Cell especially for the girlstudentsto impart awareness to them in all aspects of sexual harassment and threats that prevail in the society against them.

Hostel Monitoring Committee:

Hostel monitoring committee is framed and periodically the staff members concerned keep a watch over the activities that take place in the hostel and monitor them

First –Aid Kit:

First-Aid kit is available in every department with necessary medicines that would serve as an immediate aid to any minor illness or injuries that might happen to the student's on-campus.

1. **Counseling:**

Each department has a counseling system/mentoring   system organized by the head of the department. Each student has mentor. Boy students and girl students are counseled separately.Counseling is designed to facilitate student achievement, improve student behavior and attendance, and help students to develop personally and socially compatible. The mentor will take effective steps to solve the problem and mold the students to be mentally stronger and having high confidence about them. Also those students are closely monitored for their improvements. And also they are being watched for progress in their studies after being counseled.

1. **Common room :**

To facilitate our girl students, the Campus has established a spacious and comfortable common room. This space has been designed to give girl students a place to relax, study, have informal discussions in available free time.

Counseling in the hostel:

For the hostel students, the respective warden will take care of students and give counseling if necessary

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

7.1.3 Alternate Energy initiatives such as:

    1.Percentage of annual power requirement of the Institution met by the renewable energy sources

Response: 0.08

7.1.3.1 Annual power requirement met by the renewable energy sources (in KWH)	
Response: 65	

7.1.3.2 Total annual power requirement (in KWH)

Response: 81662

File Description	Document
Details of power requirement of the Institution met by renewable energy sources	[View Document](#)
Any additional information	[View Document](#)

7.1.4 Percentage of annual lighting power requirements met through LED bulbs

Response: 26.27

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

Response: 4776

7.1.4.2 Annual lighting power requirement (in KWH)

Response: 18179

File Description	Document
Details of lighting power requirements met through LED bulbs	[View Document](#)
Any additional information	[View Document](#)

7.1.5 Waste Management steps including:
- **Solid waste management**
- **Liquid waste management**
- **E-waste management**

Response:

Waste Management

Stella Mary's College of Engineering makes every effort to maintain an eco-friendly environment. It is extremely important that we organize and manage the waste management sector of our college, which is an infrastructural necessity for all other sectors to survey. With the motive of making a pollution free environment in all aspects, recycling is done for the different types of unwanted waste like solid, liquid and electronic wastes in the campus. We are trying to reduce the waste from the different sources which in turn are responsible for the degradation of environment. With this intention, we are recycling waste in a useful manner.

Types of Waste:

1. Solid Waste management:

Solid waste management will refer to the process of collecting and recycling solid waste. Different types of waste generated in our college campus are disposed in a proper and systematic manner. We have certain contract with private agencies who collect the waste and recycling it. Dustbins are placed everywhere in the campus. Plastic usage is strictly prohibited inside the campus. The blue-painted dustbins are used for wet and eco-friendly wastes. The red- painted dustbins are used for transfer of plastic wrappers and non-eco-friendly wastes, such as papers and glass bottles. The dry waste in the campus is sent to the private agencies for recycling.Food Waste is converted into biogas and used for the kitchen purpose in hostel..

1. **Liquid Waste Management:**

The Institution is carefully planning to reuse the liquid waste in our college. Wastage of drinking water is restricted through proper monitoring.Hostel waste water is directed to plantation. The waste water from RO plant is stored and used for toilet. The treatment of this waste water has become a key component to a profitable operation. Proper drainage system is arranged for all the buildings of the campus. All the buildings of our college are constructed such a way to save "Rain Water". Harvesting rain water is considered as vital criteria in our waste management project.

1. E-waste management:

Non-working switches, electric cables, monitors, keyboard, mouse etc. are stored and properly disposed to scrap merchant.However some of the important component like monitor, mother board is kept inthe E-waste room in our college.

Damaged Electronic component boards , Monitors , switches are used for learning purpose of the students as practical up gradation .

File Description	Document
Any additional information	View Document

7.1.6 Rain water harvesting structures and utilization in the campus

Response:

There is a great demand for water in an engineering college for usage in laboratories for performing experiments, drinking facilities, cleaning purposes, horticulture purposes etc. Bore wellsare the major source of waterinside the campus. In our campus there are 7 bore wells.

The instituteensures that the water wastage is minimized at an optimal level and also the leaky taps and pipes are under regular monitoring. Thereby, no loss of water is observed, neither by leakages nor by overflow from overhead tanks. And also the water usage is reduced with the help of sprinkler system in gardening.

On an average, the total use of water in the college is around 38,000 L/day
which includes 30,000 L/day for domestic purposes and 8,000 L/day for gardening.

Rainwater harvesting is the process of collecting rainwater and using it in a proper manner. Rainwater harvestingpromotes self-sufficiency and adopts an appreciation for water as a resource. It also promotes waterconservation.

The main objective of the Rain water harvesting in Stella Mary's College of Engineering is to increase the **ground water level .**Rainwater from the buildings are collected anddirected to theclosed wells.

From the open area of around 40 acres, water is collected through the canal to the Pond which isbuilt inside the campus.

Not only does this recharging reduce the groundwater depletion, it also raises the declining water table and can help enhance water supply. It is usedfrom relatively clean surfaces such as a roof, land surface.

Rainwater harvesting system is economically cheaper inconstruction compared to other sources. In Rainwater harvesting system there is enough open space andmud paths to harvest the rain waters. A major component to the Rainwater harvesting notion is maximizingthe collection of water from surface runoff. Gutters and channels fixed to the edges of roof all around tocollect and transport the rainwater from the roof. Gutters can be made in semi-circular and rectangularshapes with cement pipe, PVC pipes.

File Description	Document
Any additional information	View Document

7.1.7 Green Practices
- **Students, staff using**
a) **Bicycles**
b) **Public Transport**
c) **Pedestrian friendly roads**
- **Plastic-free campus**
- **Paperless office**
- **Green landscaping with trees and plants**

Response:

a) Bicycles

College is encouraging the students and staff to come in the bicycles to reduce the pollution . Some of the students andstaff are using their bicycle inwhile**.**

b) Public Transport

As the institute is located near rural road as well as west coast road it is very easy for students and parents to travel. Most of the students and faculty are availing College buses.

College Transport:

The transport office operates11 buses for students and staff from different places in and around the district. College is promoting the students and staff to come in college bus instead of their own vehicle to reduce the pollution. College is providingfree bus facilities to the employees of the college.

C) Pedestrians Friendly Roads:

The campus has wide, well maintained interlockedroads, covering all areas of the college.

Plastic free campus:

Use of plastic bags and cups are prohibited in the campus, even in the canteen usage of steel plates / leaf plates and steel cupsare in practice.

Paperless office:

The College has taken keen interest to make the officeas a paperless Office.

1. The accounts/office and academic information is stored and maintained through systems only.
2. Even the official information and circulars are preferred to be sent only through mails and Whatsapp.

Green landscaping with trees and plants:

The institute has taken several measures for planting to make Green Campus. Most of the places are covered with lawns and gardens. Large collection of trees is planted in different places in the college.

Proper supervision is carried out bygardener to maintain the environment greenly.

Vehicle operating using solar energy

Book materials, AnswerScripts, Canteen items are carried by green vehicles(echo friendly) inside the Stella Mary's campus

Energy Audit:

The Electrical &Electronics Engineering Department along with   Mechanical Engineering department has been carrying out energy audit of the entire campus. . Results and the conclusions have been drawn and submitted to the management for consideration.

Maximized usage of day-light:

The rooms are constructed in such a manner that maximum daylight should be received in class rooms and laboratories. Assessment of daylight availability and its optimum utilization is observed regularly.

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

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

Response: 0.35

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

2018-19	2017-18	2016-17	2015-16	2014-15
2.1	0.52	9.06	0.34	0

File Description	Document
Green audit report	[View Document](#)
Details of expenditure on green initiatives and waste management during the last five years	[View Document](#)
Any additional information	[View Document](#)

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

1. **Physical facilities**
2. **Provision for lift**
3. **Ramp / Rails**
4. **Braille Software/facilities**
5. **Rest Rooms**
6. **Scribes for examination**
7. **Special skill development for differently abled students**
8. **Any other similar facility (Specify)**

A. 7 and more of the above

B. At least 6 of the above

C. At least 4 of the above

D. At least 2 of the above

Response: C. At least 4 of the above

File Description	Document
Resources available in the institution for Divyangjan	[View Document]
Any additional information	[View Document]

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

Response: 9

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

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

File Description	Document
Number of Specific initiatives to address locational advantages and disadvantages	[View Document]
Any additional information	[View Document]

7.1.11 Number of initiatives taken to engage with and contribute to local community during the last

five years (Not addressed elsewhere)

Response: 12

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

2018-19	2017-18	2016-17	2015-16	2014-15
2	6	2	1	1

File Description	Document
Report of the event	[View Document](#)
Any additional information	[View Document](#)

7.1.12
Code of conduct handbook exists for students, teachers, governing body, administration including Vice Chancellor / Director / Principal /Officials and support staff

Response: Yes

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

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

Response: Yes

File Description	Document
Any additional information	[View Document](#)
Provide URL of website that displays core values	[View Document](#)

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

Response: Yes

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

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

Response: Yes

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

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

Response: Yes

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

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

Response: 18

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

2018-19	2017-18	2016-17	2015-16	2014-15
6	4	5	2	1

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

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

Response:

1. **Independence Day**: Independence Day in India is the most important day for every Indian citizen as our country got freedom from the British rule. We celebrate it on every August 15th. In our college every year we celebrate Independence Day by hoisting national flag in campus thereby enabling the students to remember the sacrifices done by our great leaders.
2. **Republic Day**: 26th of January is a gala day for every Indian. On 26th of Jan 1950 the constitution came into force and our country, India became republic. We celebrate this day as a festival every year in our college campus by hoisting national flag and followed by our National Anthem sung by a team of students.
3. **Pongal**: Pongal is a harvest festival, a traditional thanks giving occasion to nature. In order to remind the students our culture and tradition the staff and students celebrate pongal function every year by conducting various games and cooking delicious sweet pongal.
4. **Onam**: Onam is a festival celebrated by keralites to welcome King Mahabali whose spirit is said to visit kerala at the time of Onam. Onam is celebrated in the begining of the month of chingam. In our college every year we celebrate Onam by conducting various games for students and serving tasty 'Onasadhya'.
5. **Women's Day**: Every year 8th March is internationally celebrated as women's day. It is an important occasion for all of us to pause for a moment to reflect on ourselves to appreciate how much has been done and what more need it to be done in the field of gender equity. On this day we admire and appreciate our girl students who achieved in the current year.
6. **Christmas Day**: Christmas is the festival which inspires the spirit of sharing and caring. In our college every year we celebrate Christmas by forming choir, setting up cribs and placing a wonderful Christmas tree.

File Description	Document
Any additional information	View Document

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

Response:

The institution maintains complete transparency in its financial, academic, administrative and auxiliary functions' response. Staff, students and the stakeholders enjoy the association with the institution due to its

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transparency in entire process of academics and administration. The transparency is maintained by the college at all times.

Financial Transparency:

Fee structure is open and transparent. The details about the fees are given to the students and parents. Salaries of all the staff are deposited in the bank. Students can pay fees through bank or direct payment at the college office. Financial transactions are verified on daily basis.

The entire financial management is audited each year by external auditors. The college follows a practice of inviting quotations before purchase of equipments, books, computers, and furniture for use in laboratories and campus. Purchase order is placed and payments towards the purchase are made through cheques.

Academic Transparency:

The regulation, curriculum and syllabus is provide to students. The college conducts weekly exams, two internal assessment tests and one model exam based on the university pattern. Papers are evaluated immediately and distributed to the students. The marks are sent to the parents. This shows the transparency in the examination system.

For admissions to the 4-year BE course, selection of candidates is done on the basis of +2 marks. Candidates seeking admission must possess higher secondary certificate with Physics and Mathematics as compulsory subjects and Chemistry/ Biology/ Biotechnology/ Computer Science/ Electronics as one of their optional subjects. Candidates who hold diploma in Engineering can also apply.

Minimum required aggregate is 45% for admission to B.E.programme.

Eligible candidates can apply through the forms available at the college's admission office.

For admission to M.E.programme, candidates are admitted on the basis of B.E. marks. Candidates should have obtained B.Tech/ B.E degree in the relevant field with at least 50% marks from an AICTE/ UGC approved institution.

Administrative and Auxiliary Transparency

In the college Auxiliary functions are conducted in a transparent way. The Principal assists the teaching and the non-teaching staff in all academic and administrative matters .All decisions are taken in the HoDandstaff meetings. All circulars regarding, students, teaching staff and non-teaching staff are circulated, read in all the classes and displayed on the notice boards.

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

7.2 Best Practices

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

Response:

7.2.1.1 TITLE OF THE PRACTICE:

BEST PRACTICE – I

7.2.2.1 Title of the Practice

Teaching Learning Process

7.2.2.2 Objectives

1. To impart a special focus to the slow learners and advanced learners
2. To introduce student centric methods in the process
3. To make the process innovative and creative
4. To introduce valuable reforms in the CIE(Continuous Internal Evaluation)
5. To have a check over the student learning performance in terms of the attainment of POs,PSOs and COs

7.2.2.3 Context

The teaching learning process in the institution is specially focused towards the overall development of the students and the process is carried out using student centric methods to make it interesting in terms of innovation and creativity. The CIE is reformed now and then to analyze the student's performance in a micro level and for these OBE is being adopted wherein any parameter considered for a student's performance will be assessed based on the target assigned and the outcome that has been achieved.

7.2.2.4 Practice

Advanced learners are identified through their performance in examinations and other co-curricular activities. The course in-charge and the mentors take care in every aspect of the student encouraging them to be all-rounders and thereby motivate them to take part in extracurricular activities, like National / International conferences, Workshops, Seminars etc. so that the students can improve their innovative and creative ideas.

Those who are **slow learners**, the concerned mentor or faculty motivate them in a genial way and help them to achieve their personal goals. They offer a parental approach to slow learners for analyzing their problems, motivate them to improve their academic performance and also help to clarify their doubts regarding the concerned challenging subjects. An exam point of view special care is given to such students to help them make an easy pass.

Experiential learning

Teaching based onAnna university curriculum is followed by all the course instructors using teaching aids like PPT, Video Lectures, Mind Map for specific subjects, and Google class room to enrich the day to day

teaching learning process and make it interesting. This paves a way to make the students understand the engineering concepts very easily and expands their technical skill.

Guest lectures on contents beyond syllabus are organized by departments through experts from the various industries, eminent personalities from reputed institutions, to make the students aware of the recent developments in the various fields.

Participative learning

Knowledge sharing is emphasised and students are motivated to deliver lectures on technical topics and share their knowledge and experience with others. Peer learning of advanced learners to help the slow learners while preparing for the continuous assessment tests is also a key aspect for enhancing the performance of both the slow and fast learners greatly.

Centralized Examination Cell

For effectively implementing the reforms as advised by Anna University, the College has an exclusive centralized examination cell headed by a Head of the Department to conduct the internal assessment and model examinations meticulously.

The Institution has put into practice some reforms like retestsafter the evaluation of Internal Assessment Exam .

Analysis of Students Performance

The Students' progress and learning outcomes are monitored through the continuous evaluations, tutorials, periodic tests, quiz, laboratory exercises, projects and assignments. The College conducts two internal assessment tests and a model exam in all courses and reviews the performance of students in the faculty meeting at departmental level and in the result analysis meeting under the chairmanship of the Director and the Principal.

At the end of each semester, student feedback is taken course wise and performance of students is discussed, analyzed and recorded in terms of grades. Slow learner students are encouraged by conducting special coaching classes and remedial classes, to identify their problems and solve them. Course exit survey is conducted at the end of each semester by individual course instructor.

This in turn helps in arriving at the PO assessment as each CO is mapped with certain POs and PSOs. Besides this, the exit survey is taken from students for indirect assessment of the PO's. The alumni and employer surveys are taken for indirect assessment of the PSOs.

7.2.2.5 Evidence of Success

- Most of our students are from rural area , based on our learning process the students quality has been improved.
- Students are more interested towards the innovative and creative way of teaching learning process.
- Students show more interest in the participative and flipped mode of learning.
- Introduction of OBE has helped every faculty to make a micro level analysis of the learning outcomes

7.2.2.6 Problems Encountered and Resources Required

- In the beginning stage of our teaching learning process students felt difficult to adopt to the process. By seeing the improvement of the advanced learners , the slow learners also got involved into the system .
- Initially we faced some problems related to guest lecture , industrial visit later on faculty interacted with experts and industries and had overcome the above such problems.

7.2.2.1 TITLE OF THE PRACTICE: Centre of Innovation

BEST PRACTICE-2

7.2.2.1Title of the Practice

Center for innovation

7.2.2.2 Objectives

1. To develop the intra personal skills of the students.
2. To encourage students to emerge up with innovative thoughts.
3. To develop entrepreneurship skills in students.
4. To place the students in multinational companies.
5. To develop leadership quality and responsibility among students.

7.2.2.3 Context

The center for innovation team is focused towards skill development in students. It also plays a major role in developing the leadership quality among students. It makes students learn through various activity based learning and e-learning processes. It provides way for students to place in various multi-national and international companies.

7.2.2.4 Practice

The Center for innovation team was formed with a faculty representative from every department in the college. The representatives interact with all the students of their respective departments and get the students innovative ideas now and then. Based on the innovative idea from the students the activity based learning process is improved for the betterment.

Students are encouraged to start their project work right from the III semester. This would help them to focus on implementing the projects by themselves.

Based on self-interest, students are segregated for placement coaching and Hackathon, Value added courses are given to the students related by therespective department.Placement training are given to the students and trained them for soft skill developments.

To make students more innovative and creative we are conducting club activities daily through which students are trained for paper presentation ,improve aptitude skills, attitude training , innovation club to trigger innovative ideas

Regular meetings are conducted for the department representatives and feedback from every representative is considered for further development in the process.

The students are encouraged to participate in the inter-college technical symposiums. They outperform in almost all extracurricular activities and paper presentation, ad zap, rocketry, Quiz and software debugging etc.

.**7.2.2.5 Evidence of success**

* Students activelyparticipated in various programs   conducted by other colleges and theyhad received lot of appreciation.
* Based on the inputs through innovation centre students stared involved more projects in academic as wells as special projects.

7.2.2.6 Problems Encountered and Resources required

* At the beginning the students felt that they had missed the Class hours due to these activities. But because of our teaching learning process they had overcome the difficulties and started actively participating in the activities.
* We are using our faculty / infrastructure for the betterment of the students.

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

7.3 Institutional Distinctiveness

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

Response:

Vision:

To emerge as a premiere institution, acknowledged as a center for excellence imparting technical education, creating technocrats who can address the needs of the society through exploration and experimentation and uplift mankind.

Mission:

To provide an education that transforms students, through rigorous course-work and by providing an understanding of the needs of the society and the industry.

ABROAD PLACEMENT

Stella Mary's College of Engineering provides abroad job opportunities to the candidates who deserve the offer. The management is very much keen in imparting an internationally graded technical education to the students. Our institution is located in a rural area. Many of our students are from villages. Many students belong to first graduate category. Taking this into account, our college gives more importance to enhance the skills of the students to face the global challenges. With regard to this, the institution provides

- Communication training programs to improve the communication skills and the English fluency in students.
- Campus training programs that helps to impart a sound knowledge of technical skills in students.
- Training on soft skills, resume preparation, personal interviews, group discussions, are given through our Corporate Relationdepartment
- Motivational programmes are conducted to make them aware of the society and its needs.
- Personality Development Programmes are also conducted at every level to make every individual know his/ her stand in the corporate world and also to bridge the gaps that currently exists between the industry and the fresh professionals
- Every student in the institution is taken care of through the mentoring system which helps the mentor to identify their strengths, weaknesses, and the area where they are struggling to survive in their study period here at campus. We closely monitor the progress of every student in their academics as well as in the areas where one gets groomed to face the technical and the global scenario once he/she steps into the second year of study itself.
- Centre for innovation was instated that creates a platform for the students from all years to exhibit their technical competence in getting involved in all the technical aspects of the development of one's personality. Through centre of Innovation Students are motivated to participate in various technical events like technical symposium , workshops in various colleges.
- Industry personnel are invited periodically to enrich the knowledge of the student community with the latest technological innovations and industry practices. In this way, the students are encouraged to face the updated technological developments in the field of science and technology
- A call is given every semester to all the departments to involve students in research projects and those students who are interested and who would respond to this call with ideas that would solve any societal problem or any idea that is of a recent trend are involved in carrying it out under the guidance of a faculty member. These projects are funded with grants from the management if the outcome is truly worthwhile, as a token of support and encouragement.
- Human resource managers, sports personalities, and motivational speakers are invited and awareness programmes are conducted to enhance the skills of the students in all aspects to face the society with confidence.
- The infrastructural developments also enhances the teaching learning process and provides a conducive environment for the students to tame their minds to get involved in the pattern of study followed in the institution.

All these have been imparted, toprojecttheinstitute's distinctiveness in bringing in recruiters from reputed companies fromabroad for recruitmentand this has been in practice for the last three years consecutively. S'Hail Metals and Rassass Battery Recycling Factory are our abroad recruiters who would identify the best candidates who would be presented to them on the day of the interview process.

This abroad placement has also been a source of motivation for the students who aim to get placed and the expenditure for their travel and visa is also borne by the institution. Being located in a rural area and grooming the rural students technically and skillfully to take part in international placement drives is a real

challenge to the faculty involved in the research, centre for innovation and the corporate relations departments.

It's all possible through the constant motivation and support from the authorities from top order at every level. Abroad placement is a pride for the institution and a spotlight for progress towards the goal to be achieved by every student who does justice in making the best use of the study environment provided by Stella Mary's College of Engineering.

File Description	Document
Any additional information	[View Document](#)
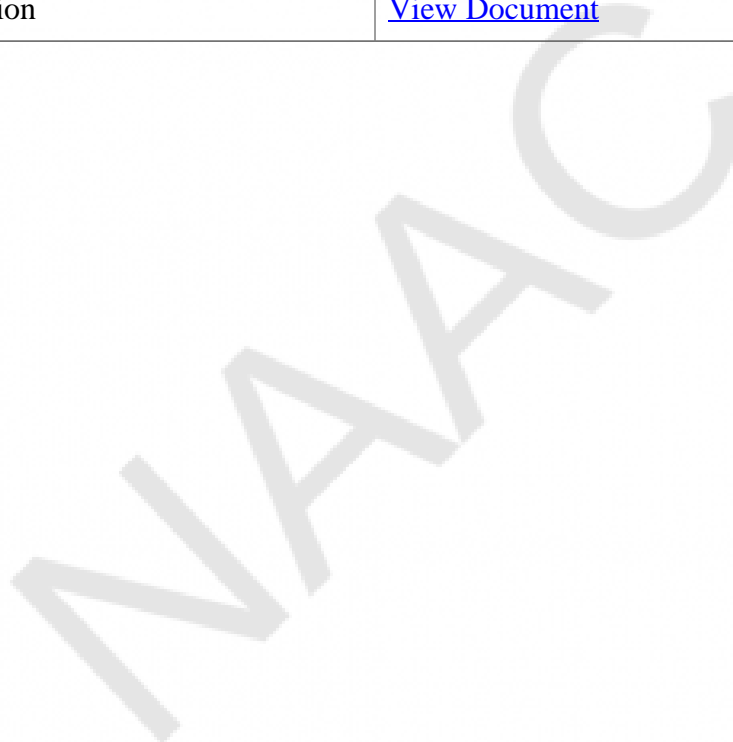
5. CONCLUSION

Additional Information :

Stella Mary's aims to get the accreditation of NAAC, NBA and ABET. NAAC is the first step towards the accreditation process which would help us to continue our quality services in a more methodical manner which ultimately would widen our vision towards development and standardisation.

Concluding Remarks :

The academic planning schedule of Stella Mary's College of Engineering is based on the academic schedule of Anna University and the process is carried over in accordance to it within the approved timeframe. A count of 1548 students could successfully complete the value added courses starting from 2013 till 2018. 84 students have completed field projects/internships, during the last five years.

The teaching, learning and evaluation process of the institution is implemented meticulously. For enrichment of the skills of the learners at different levels quantifiable Program Outcomes that can be mapped to the Qualities of a commendable and skilful graduate, the usage of ICT tools and e-learning resources such as google classroom, NPTEL videos are adopted.

The Institute has taken a step forward towards research and associated activities through equipped research laboratories/product development cells, conducting technical seminars, workshops and training sessions relating to recent technologies in the various fields to enhance the knowledge of the students on the emerging fields of research.

The Institution upholds an optimistic approach towards the enhancement and the upgrading of infrastructure which is based on the curriculum requirement as per AICTE and Anna University standards. Students are promoted and supported to get the available Government Scholarships and the institution's merit scholarship.

The Governance of the institution accords strictly with the Vision and Mission. Intending for better governance and performance, the system is effectively decentralized. The Principal, who is the academic head of the institution, fulfils the vision and mission of the institution. HoDs are entrusted with department level authority. The office administration of the College is headed by the Principal.

Stella Mary's College of Engineering offers cent percent gender equity and its policies show priorities given to women in all its functioning and activities. The institution has best practices as the OBE based teaching learning process and the effectiveness of the activities carried out under the Centre for Innovation. The institution proves good placement record for students placed in India and mainly abroad.