ANNUAL QUALITY ASSURANCE REPORT

(2019-2020)

Submitted by

Internal Quality Assurance Cell

Shanmuganathan Engineering College

(Accredited by NAAC)

Pudukkottai – 622 507, TN, INDIA

January 2021

THE ANNUAL QUALITY ASSURANCE REPORT (AQAR)
OF THE IQAC (2018-2019)

PART – A

1. Details of the Institution

1.1	Name of the Institution	SHANMUGANATHAN ENGINEERING COLLEGE
1.2	Address Line 1	ARASAMPATTI
	Address Line 2	PULIVALAM (Po) , THIRUMAYAM (Tk)
	City / Town	PUDUKKOTTAI (Dt)
	State	Tamil Nadu
	Pin Code	622 507
	Institution e-mail address	shanmuganathanengg@gmail.com
	Contact Nos.	04333-274913, 274914
	Name of the Head of the Institution	Dr. KL. MUTHURAMU
	Tel. No. with STD Code	04333-274914
	Mobile	9443440692
	Name of the IQAC Co-ordinator	Dr. M. VARADARAJAN
	Mobile	9840409497
	IQAC e-mail address	varadarajan_eee@snec.ac.in

1.3	NAAC Track ID	TNCOGN25112

1.4	NAAC Executive Committee No. & Date:	12,13 and 14th August 2016

1.5	Website address	www.snec.ac.in

	Web-link of the AQAR:	

1.6 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1st Cycle	B	2.13	2016-17	5
2	2nd Cycle				
3	3rd Cycle				
4	4th Cycle				

1.7	Date of Establishment of IQAC	14/05/2012

1.8 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC

Not Applicable

1.9 Institutional Status

University	State		Central	
	Deemed		Private	

Affiliated College	Yes	✓	No	

Constituent College	Yes		No	✓

Autonomous College of UGC	Yes		No	✓

Regulatory Agency approved Institution (eg. AICTE, BCI, MCI, PCI, NCI)	Yes	✓	No	

Type of Institution	Co-education		✓

Men		Women	
Urban		Rural	✓
Tribal			

Financial Status		
Grant-in-aid		
UGC 2(f)		
UGC 12B		
Grant-in-aid + Self -Financing		
Totally Self-financing	✓

1.10 Type of Faculty/Programme

University	Arts		Science	
	Commerce		Law	
	PEI (Phy. Edu)		TEI (edu)	
	Engg.	✓	Health Science	
	Management		Others	

1.11   Name of the Affiliating University   ANNA UNIVERSITY, CHENNAI

1.12   Special status conferred by Central/ State Government-- UGC/CSIR/ DST/DBT/ICMR etc.

Autonomy by State/Central Govt. / University   -

University with Potential for Excellence	-	UGC-CPE	-
DST Star Scheme	-	UGC-CE	-
UGC-Special Assistance Programme	-	DST-FIST	-
UGC-COP Programmes	-	DST-SERB	-
UGC-Innovative PG programmes	-	Any other (*Specify*)	-

2.   IQAC Composition and Activities

2.1   No. of Teachers | 10 |

2.2   No. of Administrative/ Technical staff | 2 |

2.3   No. of students | 5 |

2.4   No. of Management representatives | 1 |

2.5   No. of Alumni | 5 |

2.6   No. of any other stakeholder & community representatives | 2 |

2.7   No. of Employers/ Industrialists | 2 |

2.8   No. of other External Experts | 1 |

2.9   Total No. of members | 28 |

2.10   No. of IQAC meetings held | 3 |

2.11   No. of meetings with   Various Stake holders | - | Faculty | 2 |

                                            Non-Teaching Staff | 1 | Alumni | - |

2.12   Has IQAC received any funding from UGC during the year?   Yes [ ]   No [✓]

            If yes, mention the amount | - |

2.13.   Seminars and Conferences (only quality related)

(i)   No. of Seminars/Conferences/ Workshops/Symposia organized by the IQAC

       Total Nos. | 6 | International   [   ]   National   [   ]

       State | 1 | Institution Level | 5 |

(ii)   Themes

2.14.   Significant Activities and contributions made by IQAC

- Planning and monitoring academic activities.
- Identifying gaps in the curriculum(R-2017) to meet industry standards.
- Organizing value-added courses and workshops to bridge the gap.
- Training on employability skills and personality development.
- Motivation classes for first year B.E. students
- Promoting research and consultancy
- Mentorship programmes for employment opportunities.
- Creating awareness about anti-ragging and societal values.
- Extension activities of students and faculties.
- Evaluating teaching-learning process

2.15.   Plan of Action by IQAC/Outcome

Plan of Action	Outcome
Year Plan	1. Prepared academic calendar for academic year 2019-20 2. Budget preparation 3. Strategic plan for advanced learners and slow learners 4. Motivational classes for first year students
Teaching & Learning	1. Guest lecture on "*Power Transformer Protection*" 10th July 2019. 2. Guest lecture on "*Recent trends on IoT*" 11th July 2019. 3. Guest Lecture on "*Computational intelligence for multimedia*" 12th July 2019. 4. Guest Lecture on "*Motivation speech for budding engineers*" 16th July 2019. 5. Guest lecture on "*Design of Energy Saving Inverter by using Pspice Orcad Simulation*" 17th July 2019. 6. Guest lecture on "*Career Program in MEP*" 24th July 2019. 7. Guest lecture on "Gate coaching activities" *25th*

July 2019.

8. Guest lecture on *"Basics of Embedded Systems"* 31th July 2019.

9. Workshop on *"Recent trends on android and Python"* 01st August 2019.

10. Lecture on *"How to write effective resume"* 6th August 2019.

11. Lecture on *"Skill based Workshop on Arduino Microcontroller"* 7th August 2019.

12. Motivational Programme conducted on 09th August 2019 and 21st August 2019.

13. Lecture on *"Soft Computing Techniques"* 21th August 2019.

14. Lecture on *"Recent trends in engineering" 13*th August 2019.

15. Lecture on *"Motivation speech for future engineers" 27*th August 2019.

16. Students took the live pledge for Fit India Movement on 28th August 2019.

17. Lecture on *"Explain about various standards in engineering" 3*rd September 2019.

18. Technical Seminar on *"Electrical Vehicle and Bloom Energy"* 4th September 2019.

19. Guest lecture on *"Recent trends on Embedded programming"* 19th September 2019.

20. Visited CECRI opening day-science expo on 26th September 2019.

21. Lecture on "Easy English Grammar" 20th November 2019.

22. Guest Lecture on *"Recent Trends in Civil Engineering" 27*th December 2019.

23. Seminar on *"Artificial intelligence, Normalization in DBMS " 3*rd January 2020.

24. Guest Lecture on *"Inspiration and perception on developing products" 7*th January 2020.

25. Guest Lecture on *"Overview of Flexible AC Transmission Systems" 8*th January 2020.

26. Guest Lecture on *"Recent trends in Robotics and*

	automation in construction" 9th January 2020.
	27. Seminar on "*Quantum computing Block Chain 3D internet*" *10*th January 2020.
	28. Lecture on "*Shares about experience in Hyundai Company*" *21*th January 2020.
	29. Lecture on "*Swayam application*" *21*th January 2020.
	30. Guest Lecture on "*Optimal Power Flow in Power System*" *22*th January 2020.
	31. Seminar on "*3D Printing, Blue Jacking, Blue eyes technology*" *24*th January 2020.
	32. National Voters Day & Road Safety awareness conducted on 25th January 2020
	33. Seminar on "*Industrial Automation*" *29*th January 2020.
	34. Lecture on "*Working of supercharger and turbo charger*" 4th February 2020.
	35. Guest Lecture on "*Water Supply Engineering*" *08*th Feb 2020.
	36. Corona virus awareness program conducted on 10th February 2020.
	37. Seminar on "*Digital Jewelry*" 12th February 2020.
	38. Guess Lecture on "*Computer vision with deep learning*" 14th February 2020.
	39. A National level technical symposium on Organized "*TECHIEFEST 2020*" 15th February 2020.
	40. Workshop on "*Recent trends on android and Python*" 20th February 2020.
	41. One day workshop on "*Finite element analysis in heat and mass transfer applications*" 20th February 2020.
	42. Motivational Programme conducted on 22nd February 2020.
	43. Symposium conducted on "*Mechnovation 2020*" 7th March 2020.
	44. National Level Technical Symposium on 18th

	March 2020.
Research and Development	1. Eight technical papers were published in the referred/indexed journals.
Student Progression	1. Overall pass percentage 2019-20 Batch : 55.5%　(60.36 *) 2. No. university ranks secured : 1 (5*) 3. Number of students placed on campus: 34 4. Number of students appeared for GATE : 12

*For Academic Year 2018-19 (Based on previous Passed out batch)

2.16　Whether the AQAR was placed in statutory body　Yes ☑　No ☐

Management ☑　Syndicate ☐　Any other body ☐

Provide the details of the action taken

1. Conducting Weekly test, Internal Assessments and Model Examinations.
2. Intensive coaching classes for slow learners.
3. Value added courses in each department.
4. Organised guest lectures on the emerging topics.
5. Co and Extra-curricular activities through department association.
6. Coaching classes conducted for competitive examinations.
7. Aptitude and technical training to strengthen the on-campus placement.

PART – B

Criterion – I

1. CURRICULAR ASPECTS

1.1 Details about Academic Programmes 2019-20

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self-financing programmes	Number of value added / Career Oriented programmes
PhD	--	--	--	--
PG	--	--	3	--
UG	--	--	5	5
PG Diploma	--	--	--	--
Advanced Diploma	--	--	--	--
Diploma	--	--	--	--
Certificate	--	--	--	--
Others (M.Phil)	--	--	--	--
Total			8	5

Interdisciplinary	--	--	--	--
Innovative	--	--	--	--
Integrated (PG)	-	--	--	--

✓

1.2 (i) Flexibility of the Curriculum: CBCS/Core/Elective option/Open options

(The Institute is affiliated to Anna University Chennai and hence flexibility is restricted)

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	UG: 5, PG: 3
Trimester	Not Applicable
Annual	Not Applicable

1.3.   Feedback from stakeholders* (on all aspects)

Alumni   [✓] Parents   [ ]   Employers   [ ]

Students   [✓]

Mode of feedback

Online   [✓] Manual   [✓] Co-operating schools (for PEI) [ ]

1.4   Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects.

Anna University introduced new Regulation 2017 for students joined in the academic year onwards 2017-18

- Introduces Choice Based Credit System with program and course outcomes
- Total number of credits to earn 180 The Students may optionally undergo Value Added Courses and the credits earned through the Value Added Courses shall be over and above the total credit requirement prescribed in the curriculum
- Students may be permitted to credit only one online course of 3 credits
- Open Elective (OE) courses include the courses from other branches which a student can choose from the list specified in the curriculum
- The students satisfying the conditions shall be permitted to carry out their final semester Project work for six months in industry/research organizations.
- If a student fails to secure a pass in a course (except electives), the student shall do reappearance registration only along with regular students
- Total number of credits that a student is allowed to register per semester cannot exceed 36.
- A student is deemed to be passed and acquired the corresponding credits in a particular course if he/she obtains any one of the following grades: 'O', 'A+', 'A', 'B+', 'B'.

1.5   Any new Department/Centre introduced during the year. If yes, give details.

No

2. TEACHING, LEARNING AND EVALUATION

2.1   Total No. of permanent faculty (as on June 31)

Total	72	Asst. Professors	67	Associate Professors	01
Professors	04	Others (Professor Emeritus)	-		

2.2   No. of permanent faculty with Ph.D.   7

2.3   No. of Faculty Positions Recruited (R) and Vacant (V) during the year   (2019-20)

Asst. Professors		Associate Professors		Professors		Others		Total	
R	V	R	V	R	V	R	V	R	V
3	-	-	-	1	-	-	-	4	-

2.4   No. of Guest and Visiting faculty and Temporary faculty

--	--	--

2.5   Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended Seminars	2	-	4
Presented papers	-	-	-
Resource Persons	-	-	-

2.6   Innovative processes adopted by the institution in Teaching and Learning:

- o   NPTEL course materials and videos
- o   Value added courses to increase employability
- o   Expert guest lectures on emerging topics
- o   Open courseware materials to supplement teaching and learning
- o   SCILAB/XCOS software used for power system simulation lab
- o   Industrial visits for case studies
- o   Question banks were prepared for slow learners to improve university result

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2.7   Total No. of actual teaching days during this academic year

180 (as per Academic Calendar)

2.8   Examination/ Evaluation Reforms initiated by the Institution:

o   As the institution is affiliated, it follows the norms of the Anna University Chennai

o   Performance in each course shall be evaluated based on continuous internal assessment and university examinations

o   Continuous internal assessment will carry 20 marks and end semester examination will carry 80 marks for both theory and laboratory course

o   End semester university examination will be conducted in November/May by Anna University, Chennai

o   The continuous assessment will be based on three test conducted by the Institutions (Internal Assessment I, Internal Assessment II, Model Exam)

o   In addition, weekly test conducted as per the academic schedule

o   Failure and absentes students have to appear for retest after regular working hours

2.9   No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development Workshop

Not Applicable

2.10   Average percentage of attendance of students   88.97%

2.11   Course/Programme wise distribution of pass percentage:

For the Academic year 2019(July)-2020(June)

Title of the Programme (1st Year to Final Year)	Total No of students appeared	Division/Class			
		Distinction*	I Class*	II Class*	Over all Pass %
B.E. CIVIL	127	-	17	7	95.45
B.E. CSE	126	-	14	-	100
B.E. ECE	81	-	15	-	100
B.E. EEE	62	-	8	-	95.24
B.E. MECH	160	-	18	8	100
M.E. CSE	1	-	3	-	100
M.E. STRUCTURAL	3	1	3	-	100
M.E. VLSI	-	-	4	-	-

* Based on 2019 Passed out Batch

2.12   How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes**:**
o   Preparing yearly plan to achieve academic objectives

o   Organizing class committee meeting for each year to identify problem faced by the students

o   Collecting feedback from the students and analyse the effectiveness of teaching

o   Collecting faculty meetings to ensure the implementation of course objectives

o   Organising faculty development programmes in emerging trends/areas

o   Promotes quality research in terms of publications and consultancy works

o   Technical and aptitude training for the students through training and placement cell

2.13 Initiatives undertaken towards faculty development

Faculty / Staff Development Programmes	Number of faculty benefitted
Refresher courses	Nil
UGC – Faculty Improvement Programme	Nil
HRD programmes	Nil
Orientation programmes	18
Faculty exchange programme	Nil
Staff training conducted by the university	Nil
Staff training conducted by other institutions	2
Summer / Winter schools, Workshops, etc.	Nil

Others	Nil

2.14   Details of Administrative and Technical staff

Category	Number of Permanent Employees	Number of Vacant Positions	Number of permanent positions filled during the Year	Number of positions filled temporarily
Administrative Staff	7	-	-	-
Technical Staff	11	-	2	-

3. RESEARCH, CONSULTANCY AND EXTENSION

3.1   Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution

o Research cell formed to inculcate research culture in the institute.

o Subscriptions of e-journals to promote the quality of research.

o Financial assistance for attending workshops and conferences.

o Financial assistance for presenting paper in national and international conferences.

o Teaching faculties are encouraged to apply for funded research projects

o Research publications in referred and indexed journals are rewarded.

3.2   Details regarding major projects :   NIL

3.3   Details regarding minor projects :   NIL

3.4   Details on research publications

	International	National	Others
Peer Reviewed Journals	1	-	-
Non-Peer Reviewed Journals	-	-	-
e-Journals	-	-	-
Conference proceedings	-	-	-

3.5   Details on Impact factor of publications: NIL

3.6   Research funds sanctioned and received from various funding agencies, industry and other organisations

Nature of the Project	Duration Year	Name of the funding Agency	Total grant Sanctioned Rs.	Received Rs.
Major Projects	NIL			
Minor Projects				

3.7   No. of books published

(i)   With ISBN NO.   [-]   Chapters in Edited Books   [-]

(ii)   Without ISBN NO.   [-]

3.8   No. of University Departments receiving funds from : Not Applicable

3.9   For Colleges

Autonomy | NA | CPE | NA | DBT Star Scheme | NA |

INSPIRE | NA | CE | NA | Any other specify | NA |

DST-SERB | NA | UGC-COP | NA | NSQF | NA |

3.10   Revenue generated through consultancy

Sl.No	Date	Name Of Client	Work Name	Payment In Rupees
1	14.11.2019	Shanmugam - Pudukkottai	Cube Test 96 Nos- Compression Test For Cube	10,560
2	25.11.2019	R.Rameshkumar - Pudukkottai	Soil Test	20,000
3	27.11.2019	Ramco Cements - Pudukkottai	Cube Test- Compression Test For Cube	300
4	11.12.2019	Pl.Balasubramaniyan – Pudukkottai	Consultancy	10,000
5	20.12.2019	M.Parimalam - Karaikudi	Soil Test	10,000
6	31.12.2019	Er.Mohan - Pudukkottai	Consultancy	17,000
7	10.01.2020	Ramco Cements - Pudukkottai	Cube Test- Compression Test For Cube	600
8	10.01.2020	C.Murugesan - Pudukkottai	Consultancy	2,000
9	21.01.2020	Kannan Hospital- Pudukkottai	Cube Test- Compression Test For Cube	300
10	07.02.2020	R.Kalyanam - Karaikudi	Soil Test	2,000
11	07.02.2020	P.Suresh Kumar - Karaikudi	Soil Test	2,000
12	01.02.2020	R.Saravanan - Keeranoor	Soil Test	20,000
13	03.03.2020	C.Subramaniyan- Pudukkottai	Consultancy	20,000
14	04.03.2020	C.Subramaniyan- Pudukkottai	Consultancy	1,500
15	16.03.2020	Ramco Cements- Pudukkottai	Cube Test- Compression Test For Cube	330
16	23.03.2020	S.Nagarajan - Thiruppathur	Water Sample - Bore well	500
17	06.06.2020	Pl.Balasubramaniyan-	Consultancy	15,000

		Pudukkottai		
18	26.06.2020	Er.Mohan- Pudukkottai	Consultancy	9,000
			TOTAL AMOUNT	**Rs.1,41,090**

3.11   No. of conferences organized by the Institution

	International	National	State	University	College
Total	NIL				

3.12   No. of faculty served as experts, chairpersons or resource persons   `--`

3.13   No. of collaborations

International   `-`   National   `-`   Any Other   `-`

3.14   No. of linkages created during this year   `NA`

3.15   Total budget for research for current year in lakhs:
From funding agency   `-`
From Management of University/College   `-`
Total   `-`

3.16   No. of patents received this year : NIL

3.17   No. of research awards/ recognitions received by faculty and research fellows of the institute in the year : NIL

3.18   No. of faculty from the Institution who are Ph.D. Guides   `--`
          Dr. KL. Muthuramu, Principal
          Dr. K. Ganesan, Professor/Civil

3.19 No. of Ph.D. awarded by faculty from the Institution   `--`

3.20   No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones)

JRF	NA		SRF	NA
Project Fellows	NA		Any Other	NA
CSIR	NA		ICSSR	NA

3.21 No. of students Participated in NSS events:

| University level | -- | | State level | -- |
| National level | -- | | International level | -- |

3.22 No. of students participated in NCC events:

| University level | -- | | State level | -- |
| National level | -- | | International level | -- |

3.23 No. of Awards won in NSS:

| University level | -- | | State level | -- |
| National level | -- | | International level | -- |

3.24 No. of Awards won in NCC:

| University level | -- | | State level | -- |
| National level | -- | | International level | -- |

3.25 No. of Extension activities organized

| University Forum | -- | College Forum | -- | NCC | -- |
| NSS | 1 | Any other | -- | | |

3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility

S.No.	Date	Name of the Programme	No. of Beneficiaries
1	02.11.19	27th National Children's Science Congress -2018	240
2	28.05.20	SECFEST 2020	140

Criterion – IV

4. INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Fund	Total
Campus area	1,01,697.5 Sq.m.	--	--	1,01,697.5 Sq.m.
Class rooms	3,531 Sq.m.	--	--	3,531 Sq.m.
Laboratories	8, 117 Sq.m.	--	--	8, 117 Sq.m.
Seminar Halls	1, 366 Sq.m.	--	--	1, 366 Sq.m.
No. of important equipment's purchased (≥ 1 lakh) during the current year.	--	--	--	--
Value of the equipment purchased during the year (Rs)	---	--	--	--
Others (Rs)	--	--	--	--

4.2 Computerization of administration and library

- ✓ Staffs and students can access e-Journals and magazines from main library.
- ✓ Biometric attendance for teaching and non-teaching.

4.3 Library Services

	Existing (2018-2019)		Added in 2019-2020		Total	
	No.	Value (Rs)	No.	Value	No.	Value (Rs)
Text Books	33,037	95,61,789	1052	3,15,600	34,089	98,77,389
Reference Books	3,079	9,30,200	-	-	3,079	9,30,200
e-Books	21,037	-	700	-	21,737	-
Journals	304	7,22,240	17	33,249	321	7,22,257
e-Journals	2,488	-	400	-	2,888	-
Digital Database	Online database (DELNET, IESTC)	80,250	DELNET	13500	Online database (DELNET, IESTC)	93,750
JOURNAL CD	485	-	28	-	513	-
BOOK CD	756	-	-	-	756	-
Others(specify)	-	-	-	-	-	-

4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet (MBPS)	Browsing Centres	Computer Centres	Office	Depart-ments PC	Others
Existing	566	11	50	-	-	10	22	8
Added	-	-	-	-	-	-	-	-
Total	566	11	50	-	-	10	22	8

4.5 Computer, Internet access, training to teachers and students and any other programme for technology upgradation (Networking, e-Governance etc.)

✓ Each department has been provided with computers with wifi/connectivity.

✓ Computer laboratory in each department for project and research work.

✓ E-technology in curriculum development, teaching-learning, continuation evaluation and research.

✓ Students are encouraged to make use of ICT for seminars and projects.

✓ On-line feedback system

4.6   Amount spent on maintenance in lakhs:

(i)	ICT (BSNL Broad Band Connectivity)	14.69
(ii)	Campus Infrastructure and facilities	--
(iii)	Equipment	1.39
(iv)	Others	--
	TOTAL in Lakhs	16.08

Details for

(iii) Equipment

S.No.	Properties	Amount (Rs)
1.	Generator Maintenance & fuel	50,489
2.	Electrical maintenance in the campus	55,772
3.	Civil lab Maintenance	82,923
	TOTAL	1,39,184

<center>Criterion – V</center>

5. STUDENT SUPPORT AND PROGRESSION

5.1   Contribution of IQAC in enhancing awareness about Student Support Services

- o   Basic amenities, transport facilities and hostel facilities provided by the institute
- o   Scholarship assistance available from the state government
- o   Clarification of the new Regulations 2017 for first B.E./M.E. programme
- o   Awareness programme on Anti-Ragging
- o   Forming anti-raging squad and Anti ragging committee
- o   Tuition fee concession available from AICTE and Management for eligible students
- o   Medical facilities/aid provided in the institute campus

5.2   Efforts made by the institution for tracking the progression

- o   Faculty advisers/Mentors are assigned for a group of 15 students to monitor
- o   Class committee consisting of class-teachers and students representatives to identify the problems and improve teaching-learning process
- o   Identifying slow learners and provide additional guidance/coaching if required
- o   Check the attendance and academic progress of the students periodically
- o   Analysing the performance of the students after each internal assessment tests
- o   Organising Parents-Teachers meet to discuss the student progress

5.3   (a)   Total Number of students

UG	PG	Ph. D.	Others	Total
506	7	-	-	513

(b)   No. of students outside the state | -- |

(c)   No. of international students | -- |

(d)   Men

No	%
323	62.9

Women

No	%
190	37.0

(e)

2017-2018						2018-2019					
General	SC	ST	OBC	MBC	Total	General	SC	ST	OBC	MBC	Total
59	136	1	492	90	778	27	92	1	274	119	513

(f)　　　Demand Ratio = 29.66 %　　　　　Dropout = 4 Students

5.4　Details of student support mechanism for coaching for competitive examinations (If any)

- o Coaching classes for GATE examination in all disciplines
- o Providing training on aptitude and soft skills TCS –NINJA EXAMINATION
- o **Placement Assistance & Carrier Counseling Program**– Program was conducted by V7 Lancers Academy, Madurai
- o Providing training on aptitude and reasoning skills along with M/s FACE Academy, Coimbatore
- o Personality development classes to improve the students communication level
- o Activity based training programme by Youth Circle
- o Aptitude training and soft skills programme by T & P cell

No. of student beneficiaries　　　　63

5.5　No. of students qualified in these examinations

NET　　　--　SET/SLET　　　--　GATE　　　12

CAT　　　--　IAS/IPS etc　　　--　State PSC　　　--

UPSC　　　--　Tancet　　　1

　* No of students appeared for the examination

5.6　Details of student counselling and career guidance:

Students benefitted through counselling for problems under the category:

Personal Problem

- o Loneliness, Depression/Anxiety
- o Confusion or Stress
- o Anger, grief and loss
- o Issue of self-esteem

- o Difficulty in making decisions
- o Uncertainty about the future
- o Difficulty in adjusting to college life

Academic issues

- o Lack of proper communication
- o Not attending classes regularly
- o Difficulty with concentrating on studies
- o Poor academic performance
- o Not interested in attending training classes
- o Awareness about examinations like GATE/IES
- o Preparing for competency examinations
- o Choice of higher study or employment

A faculty counsellor/advisor is appointed for every 20 students

Placement coordinator for every department to carry out career counselling

Professional (Psychiatry) counselling by full time doctors

No. of Students Benefitted
| 12 |

5.7   Details of Campus Placement

Academic year	On campus			Off Campus
	Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
2019-2020	05	117	34	03
2018-2019	05	198	67	01

Campus Recruitment Drive

a. No. of students benefited through this programme ___98___

5.8 Details of Gender Sensitization Programmes

NIL

5.9 Students Activities

5.9.1 No. of students participated in Sports, Games and other events

| State/ University level | -- | National level | -- | International level | -- |

No. of students participated in cultural events

| State/ University level | -- | National level | -- | International level | -- |

Sports

Sl. No.	State/ National/Zonal	Event	No. of Participants
--	-	-	-

5.9.2　No. of medals /awards won by students:
　　　　Sports:

| State/ University level | -- | National level | -- | International level | -- |

Cultural:

| State/ University level | -- | National level | -- | International level | -- |

Others:

| State/ University level | -- |

5.10　Scholarships and Financial Support

	Number of Students	Amount Rs.
Financial support from institution	38	10,40,000
Financial support from government	445	21,30,175
Financial support from other sources	--	--
Number of students who received International/ National recognitions	--	--

5.11　Student organised / initiatives

Fairs :

| State/ University level | -- | National level | -- | International level | -- |

Exhibitions :

| State/ University level | -- | National level | -- | International level | -- |

Symposium conducted in all departments

5.12　No. of social initiatives undertaken by the students　　　--

5.13　Major grievances of students (if any) redressed:

NO MAJOR GRIEVANCES

6. GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1   State the Vision and Mission of the institution

Vision: To evolve as a Centre of Academic and Research Excellence by providing quality education through modern and best infrastructure facilities and to serve the Rural People, the Nation and the World through our Professional Graduates energized to become Leaders, Innovators, Entrepreneurs and Interpreters in their Profession.

Mission: It would be the unceasing endeavor of everyone in the institution to prepare the students to face stiff competition and coping with the continuous rapid strides in technology with courage and confidence by providing them every opportunity to attain a high degree of professional competence through sustained rigorous training. Such students should prove to be an asset not only to their families but to the country itself as crusaders of its future progress and prosperity.

6.2   Does the Institution has a Management Information System?

No. Not in the academic year 2019-2020

6.3   Quality improvement strategies adopted by the institution for each of the following:

6.3.1 Curriculum Development

As the institution is an affiliated engineering college, the Institution follows Curriculum developed by Anna University Chennai. For the academic year 2017-18, the regulations 2013 and 2017 were followed.

6.3.2 Teaching and Learning

o   Preparation of Lesson plans for theory and laboratory courses based on outcome based education model
o   Developed Teaching aides (PPT presentation, videos etc.) for better visualization
o   Use of ICT techniques for effective teaching
o   Tutorial classes and assignments for in-depth understanding of concepts
o   Numerical / computational assignments to improve analytical skills
o   Inculcating practical knowledge through case studies and in-plant training
o   Remedial classes are conducted for slow learners to improve the learning level

- o Evaluating the ability of the students to correlate the concepts studied through mini projects
- o Conducting collaborative workshops
- o Encouraging the students to give technical seminars on emerging trends
- o Arranging field visits, industrial visits and educational tours
- o Group discussion to improve communication skill

6.3.3 Examination and Evaluation

- o The institute has a separate examination cell and functioning with controller of examinations
- o Performance of the student in each course subject shall be evaluated based on continuous internal assessment and university examinations
- o Continuous internal assessment will carry 20 marks and end semester university examination will carry 80 marks
- o Two internal assessment test and one model examination are conducted and evaluated within 3 days
- o In addition weekly test are conducted as per the academic calendar
- o Retest are conducted for those students who failed or absented in internal assessment tests
- o For internal assessments, central valuation is implemented as per university regulations and norms
- o Internal marks are awarded based on the performance in continuous assessment
- o Regulation 2017

6.3.4 Research and Development

- o The institute have a separate R & D cell to promote the research activities
- o Motivating faculties to take minor/major research projects from funding agency
- o Motivating teaching faculties to register for research /Ph.D
- o Financial assistance to attend conference, FDP, seminars and workshops.
- o Financial assistance to present papers at state, national and international conferences
- o Encouraging faculty to organize FDP, seminars and workshops
- o Encourage the UG and PG students to do research oriented projects and case studies

o The faculty members have published 1 research papers in reputed and peer reviewed journals

6.3.5 Library, ICT and physical infrastructure / instrumentation

o Wi-Fi enabled campus.
o Wi-Fi facility is provided for the students and faculties

6.3.6 Human Resource Management

o Organization of in-house faculty development programs.
o Conducting faculty development programs with Anna university, Chennai

6.3.7 Faculty and Staff recruitment

o Following well laid-out policy and process
o Eligible candidates apply for the suitable post throughout the academic year
o Advertisements in major leadings regional and national newspapers also given whenever needed
o Online submission of resume
o Recruitments are made based on performance in written test , technical and personal interview

6.3.8 Industry Interaction / Collaboration

Nil

6.3.9 Admission of Students

o The institution following the state government norms for admission
o Strictly adhering the state government reservation policy
o Special preferences are given for the first generation learners, minority communities as per the Vision and Mission of the institution

6.4 Welfare schemes for

Beneficiaries	Details	No. of Beneficiaries
Teaching	Tuition Fees concession to the Children of staff members	--

Non - teaching	Tuition Fees concession to the Children of staff	--
Students	a) Fees Concession	10,40,000
	b) Tuition fees concession for Sportsmen	--

6.5   Total corpus fund generated

<div style="border:1px solid">-</div>

6.6   Whether annual financial audit has been done

Yes   ✓   No   ☐

6.7   Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	ISO 9001-2015	Yes	HoD
Administrative	Yes	Srinivasan and Srivathson	Yes	HoD

6.8   Does the University/ Autonomous College declare results within 30 days?

Not applicable

6.9   What efforts are made by the University/ Autonomous College for Examination Reforms?

Not Applicable

6.10   What efforts are made by the University to promote autonomy in the affiliated/constituent colleges?

Not Applicable

6.11 Activities and support from the Alumni Association

Institute conducts alumni meet every year.

Exhaustive alumni database and details are regularly updated on college website.

Alumni facilitating campus placement.

Alumni delivering technical lectures.

Motivate and guide the students to become entrepreneurs.

6.12   Activities and support from the Parent – Teacher Association

Parents meetings conducted in each semester regularly by each department. The suggestions made by the parents are forwarded to suitable forum for further course of action.

Department	Parents Meeting				Total
	I Year	II Year	III Year	IV Year	
Civil	8	4	12	6	30
Mech.	11	8	9	5	33
ECE	5	7	4	9	25
CSE	7	10	6	4	27
EEE	5	5	4	7	21

6.13   Development programmes for support staff

The supporting staffs are encouraged to pursue higher education.   --

ICT training

6.14   Initiatives taken by the institution to make the campus eco-friendly

o   Tree plantation and green environment maintenance.

o   Minimizing water wastage

o   Deployment of solar heaters and lighting

o   Rainwater harvesting

o   Energy efficient lamps and LED lights

o   Minimising paper use

o   Energy conservation

<center>**Criterion – VII**</center>

7. INNOVATIONS AND BEST PRACTICES

7.1 Innovations introduced during this academic year which have created a positive impact on the functioning of the institution. Give details.

Online remote learning practice was adapted

7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year

Process of academic planning started in the year 2018-2019

7.3 Give two Best Practices of the institution

Best Practice - I

(i) Title

  Online remote learning

(ii) Objective

  (i) To teach online using mobile applications

  (ii) To provide remote class rooms using online mode teaching

  (iii) To Share notes and teaching materials to students using online platforms

  (iv) To provide assignments online

  (v) To conduct online tests

(iii) Context

  The onset of the Covid-19 pandemic has led to a lot of unprecedented changes in the world. Students and teachers had to adapt to remote learning which posed many challenges, especially for the teachers, who have been striving to provide quality education without compromising the process and techniques of teaching.

  Online teaching requires teachers to understand various aspects of the technology ecosystem and unlike the classroom, online teaching may prove ineffective for a teacher to gauge the learning levels of students. It is important that the teachers set a blueprint for the students to ensure the sessions are conducted seamlessly. Teachers should aim towards planning in advance so that the pace of teaching is aligned to the syllabus that needs to be covered within a set timeframe.

This structured approach includes setting an agenda for the session, ensuring the students know the prerequisite including the lessons that will be covered during the session, revision that needs to be done before the session, assignments or tests that need to be scheduled and fixing the timing of the class so that the session runs without any delay or hindrance.

It is important that teachers involve students in classroom discussions and help them become self-regulated learners. Self-regulated learning ensured that the students are proactive in their learning approach, which is essential in both offline and online classroom environment, to think positively and empower them in developing lifelong learning skills. Online teaching requires teachers to understand various aspects of the technology ecosystem such as synchronous teaching, using the internet, plug in devices and the requisite skill set that can help them expedite their tasks. Teachers also need to be conversant with tools to conduct online quizzes, tests and evaluate assignments. It is also important for teachers to know how technology can be integrated for different subjects based on the requirements when it comes to varying subjects such as math, arts, sports and science.

In a physical classroom setting, the students usually interact with each other through group activities and class discussions. It is important that the collaborative learning process is encouraged even in the virtual setting, which happens in the physical classroom. Teachers promoted teamwork by allotting time for students to collaborate within groups, where they would discuss their assignments and interact with each other virtually.

(iv) Evidence of Success

The key features and advantages of online remote learning are listed below:

- Involves creativity and makes learning interesting
- Makes collaboration easier as students, teachers and parents can communicate effectively
- Students started learning early as they build technology-based skills
- Reduces the need of textbooks thus lowering costs incurred by students
- The Use of Smart Boards-They help in creating good visualization of topics. The course content becomes interactive and visual.
- It transforms the teaching experience into a collaborative one.

- Cloud Computing – Cloud computing allows students to access homework from anywhere -anytime with an internet connection.

(v) Problems Encountered and Resources Required

- It is difficult for teachers to give attention to every single student,
- Apart from conducting classroom sessions online, for teachers, they also have the responsibility to develop the digital format of the teaching materials.
- There are many teachers with limited skills in advanced technology
- Mobile signal problems in some places may disturb online classes for some students
- Un availability of unified mobile platforms for online teaching

(vi) Outcome

The Online remote learning was successfully implemented for the students which enable remote learning through online platforms. It immensely reduced paper work and almost nil physical class room teaching. This greatly helped in reduction of infrastructure cost, electricity cost, transport charges and saved a plenty of time for both teachers and students.

Best Practice – II

(i). **Title**

Management Scholarship

(ii). **Objective**

- To help the economically weaker students
- To fulfil the Mission of the College through serving the poor and the needy

(iii). **Context**

Many students are first generation learners hailing from a financially poor background. Fulfilling the Vision of the college in uplifting the poor and the needy students, the Management Scholarship is an innovative one to support the cause of the economically weaker students.

(iv). **Execution of the Practice**

The Management Scholarship, the cell to help the needy, especially for first generation learners, identifies poor / economically weaker students, based on the annual income of their parents, the marks obtained in the higher secondary

school, final year Diploma or university results (last updated) of under-graduate programme, and attendance in the classes.

(v). **Evidence of Success**

The key features and advantages of online remote learning are listed below:

- Makes collaboration easier as students, teachers and parents can communicate effectively
- Students started learning early as they build technology-based skills
- Reduces the need of textbooks thus lowering costs incurred by students
- The Use of Smart Boards-They help in creating good visualization of topics. The course content becomes interactive and visual.

(vi). **Problems Encountered and Resources Required**

- Some of the needy students have failed to apply for the Management concession because they were not able to submit the income certificate in time, owing to the delay in getting it from the government offices.
- Owing to financial constraints, the Management is not able to provide financial support to all the applicants.

(vii). **Outcome**

Management concession is a unique programme offered by Shanmuganathan Engineering College, which has inspired other city colleges to provide similar financial assistance to their needy students.

7.4   Contribution to environmental awareness / protection

Rain water harvesting

Tree planting

Renewable energy club

Awareness programme

Energy conservation

7.5   Whether environmental audit was conducted?

Yes [ ] **No** [✓]

7.6   Any other relevant information the institution wishes to add. (for example SWOT Analysis)

SWOT analysis is carried out by each department for their internal auditing

Strength	:	Well qualified and experienced faculties
		Young and dynamic faculty team
		Good lab infrastructure facilities
		Excellent academic plan based on OBE
		Students-Teachers ratio as per norms
		Coaching classes for below average students
Weakness	:	Students from rural background
		Not all departments have PG Program
		Only CIVIL Engineering department is a recognized research centre
Opportunities	:	Can concentrate on quality teaching
		Conduct more Faculty Development Programmes
		Workshop – Hands on training can be provided
		Value added courses can be introduced to increase the employability
Threats	:	Declining academic quality of the students
		Preference of science course rather than engineering
		Competition from number of engineering colleges

8. **Plan of Institution for next year**

1. Strengthening the placement activities for the students.
2. To initiate community projects in collaboration with local authorities.
3. Strengthening the research infrastructure.
4. Increasing the number of students in co and extracurricular activities
5. Publishing research articles in peer reviewed journals with high impact factor.
6. Preparing and summiting project proposals to various funding agencies
7. Carryout consultancy work for industries
8. Strengthening the Alumni Network and Alumni Funded Projects.
9. Development of sports infrastructure facility of institution.
10. To increase MoU's with leading organization to promote consultancy and research work
11. Develop the institution as a Center of Excellence

Signature of the Coordinator, IQAC   Signature of the Chairperson, IQAC

Details of Peer Reviewed Journals:

S.No.	Title of the paper	Author(s)	Name,volume,journal, year of publication and impact factor.	Page No. From To
1	Self-power generation using gravity wheel	Dr.K.Senthamarai	Journal of Emerging Technology and Innovative Research, vol.7, 2020. Impact factor-5.87	122-125