

ANNUAL QUALITY ASSURANCE REPORT (2018-2019)

Submitted by



Internal Quality Assurance Cell
Shanmuganathan Engineering College

(Accredited by NAAC)
Pudukkottai – 622 507, TN, INDIA

December 2019

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@sneec.ac.in

1.3 NAAC Track ID

1.4 NAAC Executive Committee No. & Date:

1.5 Website address

Web-link of the AQAR:

1.6 Accreditation Details

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

1.7 Date of Establishment of IQAC

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

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				<input type="text" value="10"/>	
2.2	No. of Administrative/ Technical staff				<input type="text" value="2"/>	
2.3	No. of students				<input type="text" value="5"/>	
2.4	No. of Management representatives				<input type="text" value="1"/>	
2.5	No. of Alumni				<input type="text" value="5"/>	
2.6	No. of any other stakeholder & community representatives				<input type="text" value="2"/>	
2.7	No. of Employers/ Industrialists				<input type="text" value="2"/>	
2.8	No. of other External Experts				<input type="text" value="1"/>	
2.9	Total No. of members				<input type="text" value="28"/>	
2.10	No. of IQAC meetings held				<input type="text" value="3"/>	
2.11	No. of meetings with	Various Stake holders	<input type="text" value="-"/>	Faculty	<input type="text" value="2"/>	
		Non-Teaching Staff	<input type="text" value="1"/>	Alumni	<input type="text" value="-"/>	
2.12	Has IQAC received any funding from UGC during the year?	Yes	<input type="text"/>	No	<input checked="" type="text" value="✓"/>	
	If yes, mention the amount		<input type="text" value="-"/>			
2.13.	Seminars and Conferences (only quality related)					
(i)	No. of Seminars/Conferences/ Workshops/Symposia organized by the IQAC					
	Total Nos.	<input type="text" value="6"/>	International	<input type="text"/>	National	<input type="text"/>
	State	<input type="text" value="1"/>	Institution Level	<input type="text" value="5"/>		
(ii)	Themes	<input type="text" value="Embedded systems in IoT"/> <input type="text" value="Electrical design aspects in MEP"/> <input type="text" value="Open source software – Python"/>				

Project competition – Expo'18

Importance of Outcome Based Education In Engineering

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.
- Motivational classes for first year students
- Evaluating teaching-learning process

2.15. Plan of Action by IQAC/Outcome

Plan of Action	Outcome
Year Plan	<ol style="list-style-type: none">1. Prepared academic calendar for academic year 2018-192. Budget preparation3. Strategic plan for advanced learners and slow learners4. Motivational classes for first year students
Teaching & Learning	<ol style="list-style-type: none">1. Guest Lecture on “<i>PMU Based Transmission Line Protection</i>” 11th July 2018.2. Guest Lecture on “<i>Pattern Recognition</i>” on 19th July 2018.3. One Day Work shop on “<i>MEP (Electrical Designing)</i>” 27th July 2018.4. Guest Lecture on “<i>SCILAB for Engineers</i>” on 01st August 2018.5. Lecture on “<i>Engineering Trends in Civil Engineering</i>” on 3rd August 2018.

	<ol style="list-style-type: none"> 6. Lecture on "<i>The Power of Career Engineering</i>" on 6th August 2018. 7. One day workshop on "<i>Python Programming</i>" on 9th August 2018. 8. One day workshop on "<i>Lab View Applications</i>" on 23rd August 2018. 9. Lecture on "<i>Career of Civil Engineering</i>" on 27th August, 2018. 10. Lecture on "<i>Advanced Techniques of Treatment of Industrial Waste Water</i>" on 3rd September, 2018. 11. Guest Lecture on "<i>Embedded System for Product Development</i>" on 05th September 2018. 12. Guest Lecture on "Importance of Outcome Based Education In Engineering" on 5th October 2018. 13. State level project competition "<i>EXPO'18</i>" on 5th October 2018. 14. Special Lecture on "<i>PV Special Lecture on Technology</i>" on 26th December 2018. 15. One day National Seminar on "<i>Embedded Systems in IoT</i>" on 5th January 2019. 16. Guest lecture on "<i>Protection of Power Transformer- An Overview</i>" on 9th January 2019. 17. Guest Lecture on "<i>Machine Learning Techniques</i>" on 10th January 2019. 18. Organized "<i>Junior welfare programme</i>" for ECE and CSE students on 11th January 2019. 19. Guest Lecture on "<i>Recent Trends in Transportation Engineering</i>" on 28th Jan 2019. 20. Special Lecture on "LiFi Technology and its Applications" on 6th February 2019. 21. Special Lecture on "<i>Transportation Engineering</i>" for Civil Engineering students on 23rd February 2019. 22. Feedback Analysis from the students about the course and course teachers. 23. Arranged Industrial Visit for 2nd year and 3rd year students.
Research and Development	<ol style="list-style-type: none"> 1. Eight technical papers were published in the

	referred/indexed journals.
Student Progression	<ol style="list-style-type: none"> 1. Overall pass percentage 2018-19 Batch : 60.36 % (55.81*) 2. No. university ranks secured : (5*) 3. Number of students placed on campus: 68 4. Number of students appeared for GATE : 04

*For Academic Year 2018-19 (Based on 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

- | |
|---|
| <ol style="list-style-type: none"> 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 2018-2019

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

Criterion – II

2. TEACHING, LEARNING AND EVALUATION

2.1 Total No. of permanent faculty

Total	86	Asst. Professors	80	Associate Professors	01
Professors	05	Others (Professor Emeritus)	-		

2.2 No. of permanent faculty with Ph.D. 8

2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year (2018-19)

Asst. Professors		Associate Professors		Professors		Others		Total	
R	V	R	V	R	V	R	V	R	V
12	-	-	-	3	-	-	-	18	-

2.4 No. of Guest and Visiting faculty and Temporary faculty

--	--	--
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2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended Seminars	-	3	-
Presented papers	1	3	-
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



Association inaugural with Guest lecture

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

81.7

2.11 Course/Programme wise distribution of pass percentage:

For the Academic year 2018(July)-2019(June)

Title of the Programme (1 st Year to Final Year)	Total No of students appeared	Division/Class			
		Distinction*	I Class*	II Class*	Over all Pass %
B.E. CIVIL	186	1	24	09	24.19
B.E. CSE	107	2	16	-	49.53
B.E. ECE	98	1	19	3	38.78
B.E. EEE (1 st , 2 nd , 3 rd & 4 th)	78	-	10	3	33.33
B.E. MECH	214	1	26	10	31.78
M.E. CSE – 1 st and 2 nd	4	-	3	-	100
M.E. STRUCTURAL - 1 st & 2 nd	10	5	3	-	100
M.E. VLSI	4	-	-	-	100

* Based on 2018 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	-

Criterion – III

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 EEE department conducted National Level Seminar on “Role of Embedded Systems in IoT” and received a grant Rs. 15,000/- as partial financial support from TNSCST.
- o Research publications in referred and indexed journals are rewarded.



National Level Seminar on “Role of Embedded Systems in IoT”

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	3	-	-
Non-Peer Reviewed Journals	-	-	-
e-Journals	5	-	-
Conference proceedings	1	-	-

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

Date	Name of Client	Work Name	Payment in Rupees
31.07.2018	SSA Ready Mix	Soil Teat	1000
24.01.2019	Alayam construction	Testing charger for wooden	2000
14.02.2019	Emerald Tiles	Compression test for cube	450

13.03.2019	S.Shanmugam, Manaparai	Cube test 30 No.	3300
16.03.2019	T.Jayanth, Trichy	Column load test	3000
27.03.2019	Victor Jebaraj	Soil teat	5000
23.04.2019	Muthu meenakshi & Co	Paver block test	900
13.05.2019	A.Muthu Lakshmi & Co	Paver block test	900
11.06.2019	A.Muthu Lakshmi & Co	Paver block test	450
05.07.2019	Mohan	Soil Test	5000
Total			22,000

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

Dr. KL. Muthuramu

Dr. K. Ganesan

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

Dr. S. Saravanakumar, Professor/CSE

Dr. T. Kanimozhi, Professor/ECE

and students registered under them

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 SRF

Project Fellows Any Other

CSIR ICSSR

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 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	26.10.18	26 th National Children's Science Congress -2018	180
2	04.01.19	SECFEST	328

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 (\geq 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 (2017-2018)		Added in 2018-2019		Total	
	No.	Value (Rs)	No.	Value	No.	Value (Rs)
Text Books	31,095	89,79,189	1942	5,82,600	33,037	95,61,789
Reference Books	3,079	9,30,200	-	-	3,079	9,30,200
e-Books	20,714	-	323	-	21,037	-
Journals	211	5,74,000	93	1,48,240	304	7,22,240
e-Journals	1,650	-	838	-	2,488	-
Digital Database	Online database (DELNET, IESTC)	66,500	Online database (DELNET, IESTC)	13,750	Online database (DELNET, IESTC)	80,250
JOURNAL CD	480	-	4	-	485	-
BOOK CD	682	-	74	-	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 up gradation (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	10.42
(iii)	Equipment	5.20
(iv)	Others	1.21
TOTAL in Lakhs		31.52

Details for

(ii) Campus Infrastructure and facilities : (Conversion of agriculture supply to regular three phase supply)

S.No.	Properties	Amount
1.	Civil construction for conversion of EB supply	30,060.00
2.	3-phase connection (Industrial Feeder)	10,12,270.00
TOTAL		10,42,330.00

(iii) Equipment

S.No.	Properties	Amount (Rs)
1.	Generator Maintenance & fuel	2,61,017.90
2.	Electrical maintenance in the campus	1,60,993.00
3.	EEE - PE and C&I lab Maintenance	8,442.00
4.	ECE lab Maintenance	4,845.00
5.	Civil lab Maintenance	84,950.00
TOTAL		5,20,247.90

(iv) Others : (General Maintenance)

S.No.	Properties	Amount (Rs)
1.	RO system	60,700.00
TOTAL		60,700.00

(Sports)

S.No.	Properties	Amount (Rs)
1.	Sports items (ball, gloves, bat, bat hammer, net, etc)	32,000.00
2.	Other sports items	29,000.00
TOTAL		61,000.00

Criterion – V

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
760	18	-	-	778

(b) No. of students outside the state

--

(c) No. of international students

--

(d) Men

No	%
513	74.6

Women

No	%
265	25.4

(e)

2017-2018						2018-2019					
General	SC	ST	OBC	MBC	Total	General	SC	ST	OBC	MBC	Total
166	152	1	403	248	970	59	136	1	492	90	778

(f) Demand Ratio = 34% Dropout = 10 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 reasoning skills along with M/s FACE Academy, Coimbatore
- o Personality development classes to improve the students communication level
- o Two days motivational programme on GATE 2018 Procedure and Practice
- o Activity based training programme by Youth Circle
- o Aptitude training and soft skills programme by T & P cell

No. of student beneficiaries

72

5.5 No. of students qualified in these examinations

NET	--	SET/SLET	--	GATE	4
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

14

5.7 Details of Campus Placement

On campus				Off Campus
Academic year	Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
2018-2019	05	198	67	01
2017-2018	04	206	54	30

Campus Recruitment Drive



a. No. of students benefited through this programme

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
1.	Zonal	Cricket	16
		Kabadi	12
		Football	16
		Ball badminton	8

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	115	29,92,000
Financial support from government	506	89,67,700
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
Criterion – VI

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 2018-2019

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 (7 members are registered)
- 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 7 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

- o MoUs signed with Interlogix Embedded Solutions Pondicherry

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	01
Non - teaching	Tuition Fees concession to the Children of staff	01
Students	a) Fees Concession b) Tuition fees concession for Sportsmen c) Student Counselling centre	115

6.5 Total corpus fund generated

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					
Mech.					
ECE					
CSE					
EEE	-	3	4	2	9

6.13 Development programmes for support staff

The supporting staffs are encouraged to pursue higher education.

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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

Criterion – VII

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 Students Feedback System on teaching learning process was introduced.

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 2017-18

7.3 Give two Best Practices of the institution

Best Practice - I

(i). Title

Online Feedback System

(ii). Objective

- To enable all the stack holders of the institution to provide feedback through online.
- To give attention to the views of Student's on the involvement in learning and teaching through feedbacks
- To manage and record the feedback digitally for the better functioning of various departments, transport, canteen, library and placement cell

(iii). Context

The feedback from all stakeholders in terms of its relevance and appropriateness are considered to be a key aspect for enhancing and redefining an institution. Our institution is committed to obtain timely and appropriate feedback from different stake holders to reflect on the progress and development effectively.

- Periodic department meetings are held to communicate and discuss activities within and external to the Department. The meetings help to build peer relationship, focus on professional development, solve problems and make decisions.

- General interaction with different boards constituted by the University.
- Faculty submits a report after attending National / International workshops, seminars and conferences.
- Discussions with peer and self interest groups.

Students feed back

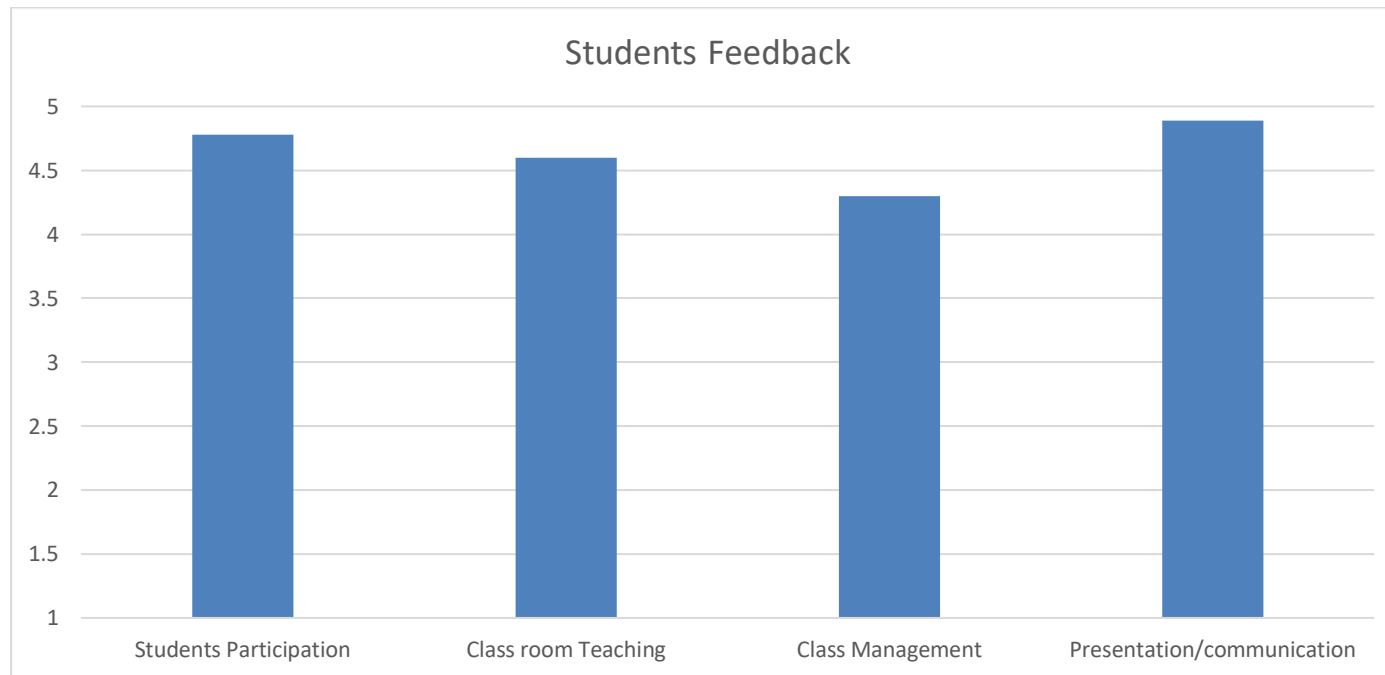
The students participation during the feedback is as follows wherein which all the departments are concerned.

- First feedback which is conducted after the first class committee meeting which comprises of questions including salient features on the course preparation by teachers, approach and teaching learning process before the first part of first continuous assessment test.
- Second feedback is conducted during the mid-semester where laybacks, contrived and the other lags are discussed.
- The course teacher and the course consists of final feedback where Part A consists of following
 1. Presentation skills of the course teacher
 2. Approach adopted by the course teacher
 3. Effectiveness of teaching learning methodology
 4. Evaluation
- The next part consists of questions on usefulness and course objective and progressive qualitative evaluation where interactive learning methods play a huge role.
- This performance evaluation of students feedback on the staff will be considered for the performance appraisal scoring system of the faculty members which enhances for the sanction of increment others etc;
- The lagging staffs that fall back on feedback will be counselled by the Head of the Department. Those who fall under faculty performance index below same prescribed level would be motivated to enable for increment and to improve their poor performance.

Overall Students feedback for Subject Teacher

No. of Students: 28

Subject: Data Structures



Feedback Rating:

5. Excellent 4. Very good 3. Good 2. Satisfactory 1. poor

Department	Year	Subject 2	1.1 Teacher comes to class in time	1.2 Teaching is well planned	1.3 Aims/Objectives are made clear	1.4 Organization of the subject matter is in logical sequence	1.5 Teacher comes well prepared in the subject	2.1 Teacher speaks clearly and audibly	2.2 Teacher writes/draws legibly	3.1 Instructions are suited to the attainment of students	3.2 Concepts, principles, Explanations are clear & effective	2.5 Teacher uses audio visual aids/modes for effective teaching	3.3 Teacher promotes interaction and reflective thinking	3.4 Teacher questions/raises doubts and answers them well	3.5 Teacher activity and problem solving ability in the class	3.6 Teacher compliments and praises originality and creativity	3.7 Teacher deals impartially with the students	4.1 Teacher engages classes regularly and maintains discipline	4.2 Teacher covers the syllabus completely and at appropriate pace	4.3 Teacher instills confidence in their students	4.4 Teacher's valuation of scripts is prompt, fair and impartial	4.5 Teacher offers assistance and counseling to the needy students
CSE	II	Data Structures	5	4	3	4	4	5	4	4	3	5	5	4	4	5	4	5	5	4	3	5
CSE	II	Data Structures	4	2	3	3	4	4	4	3	3	4	3	3	5	2	3	5	4	4	3	4
CSE	II	Data Structures	4	4	4	4	5	5	5	4	4	5	5	4	4	4	5	4	5	4	3	5
CSE	II	Data Structures	4	3	4	4	3	3	4	4	5	5	5	3	4	4	4	4	4	4	4	4
CSE	II	Data Structures	5	4	3	4	4	5	4	4	3	5	5	4	4	5	4	5	5	4	3	5
CSE	II	Data Structures	4	2	3	3	4	4	4	3	3	4	3	3	5	2	3	5	4	4	3	4

CSE	II	Data Structures	4	4	4	4	5	5	5	4	4	5	5	4	4	4	5	4	5	4	3	5	
CSE	II	Data Structures	4	3	4	4	3	3	4	4	5	5	5	3	4	4	4	4	4	4	4	4	4
CSE	II	Data Structures	4	2	3	3	4	4	4	3	3	4	3	3	5	2	3	5	4	4	3	4	4
CSE	II	Data Structures	4	4	4	4	5	5	5	4	4	5	5	4	4	4	5	4	5	4	3	5	5
CSE	II	Data Structures	4	3	4	4	3	3	4	4	5	5	5	3	4	4	4	4	4	4	4	4	4
CSE	II	Data Structures	5	4	3	4	4	5	4	4	3	5	5	4	4	5	4	5	5	4	3	5	5
CSE	II	Data Structures	4	2	3	3	4	4	4	3	3	4	3	3	5	2	3	5	4	4	3	4	4
CSE	II	Data Structures	4	4	4	4	5	5	5	4	4	5	5	4	4	4	5	4	5	4	3	5	5
CSE	II	Data Structures	4	3	4	4	3	3	4	4	5	5	5	3	4	4	4	4	4	4	4	4	4

		es																				
CSE	II	Data Structures	5	4	3	4	4	5	4	4	3	5	5	4	4	5	4	5	5	4	3	5
CSE	II	Data Structures	4	2	3	3	4	4	4	3	3	4	3	3	5	2	3	5	4	4	3	4
CSE	II	Data Structures	4	4	4	4	5	5	5	4	4	5	5	4	4	4	5	4	5	4	3	5
CSE	II	Data Structures	4	3	4	4	3	3	4	4	5	5	5	3	4	4	4	4	4	4	4	4
CSE	II	Data Structures	4	2	3	3	4	4	4	3	3	4	3	3	5	2	3	5	4	4	3	4
CSE	II	Data Structures	4	2	3	3	4	4	4	3	3	4	3	3	5	2	3	5	4	4	3	4
CSE	II	Data Structures	4	3	4	4	3	3	4	4	5	5	5	3	4	4	4	4	4	4	4	4
CSE	II	Data Structures	5	4	3	4	4	5	4	4	3	5	5	4	4	5	4	5	5	4	3	5

CSE	II	Data Structures	4	2	3	3	4	4	4	3	3	4	3	3	5	2	3	5	4	4	3	4	
CSE	II	Data Structures	4	3	4	4	3	3	4	4	5	5	5	3	4	4	4	4	4	4	4	4	4
CSE	II	Data Structures	4	3	4	4	3	3	4	4	5	5	5	3	4	4	4	4	4	4	4	4	4
CSE	II	Data Structures	5	4	3	4	4	5	4	4	3	5	5	4	4	5	4	5	5	4	3	5	

Alumni Feedback

- Number of respondents: 40
- Quantitative Feedback from Alumni

S.No	Parameters	Overall Rating between 1 to 4	Remarks
1	I feel Proud to be associated with SEC as an Alumni	4	Strongly Agree
2	Institute organizes various types of activities for overall development of students	3	Agree
3	T&P Cell provides ample on-campus and off-campus placement opportunities	3	Agree
4	I receives regular updates from the Institute through Mails/Calls/SMS	4	Strongly Agree
5	Institute has adequate laboratories and equipment for practical experiences	4	Strongly Agree
6	Education imparted at SEC is useful and relevant in my present job	4	Strongly Agree
7	Faculty members of the institute are competent and supporting to the students	4	Strongly Agree
8	Institute provides good hospitality as an Alumni	4	Strongly Agree
9	I am willing to contribute in the development of Institute	3	Agree

- Feedback on Scale (1 to 4): 1 – Disagree, 2 – Neutral, 3 – Agree, 4 – Strongly Agree
- Report of the actions taken on Qualitative Feedback received from Alumni

Stakeholder	Feedback	Action taken
Alumni	Focus on computer languages like Adv. Java and advanced topics.	Add-on programmes on computer languages and advanced technologies are introduced.
	Cover aptitude and reasoning skills preparing	Decided to focus more on these skill sets in ongoing add-on programme of

	students for campus placement	the institute- 'Campus to Corporate'.
	Syllabus must have more practical knowledge than theory	Decided to conduct extra experiments for the courses during laboratory hours and plan more industry visits.
	Current and updated knowledge is essential for the students.	Prepared a plan to conduct lectures beyond the syllabus to cover recent trends in the field of engineering.

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

- The online feedback system is provided by the various stakeholders through the feedback link available in our college website (www.shanmuganathanengg.in/feedback).
- Every semester the feedback from the students for the class room teaching is obtained and analysed.
- The parents and the alumni can give their feedback throughout the year using the link provided in the college website.

(v). **Evidence of Success**

The key features and advantages of online feedback system are listed below:

- 1) **Cost-efficiency:** using this system reduces the cost of paper and in person surveys which are conducted also the administration cost is reduced.
- 2) **Time saver:** feedback software saves a lot of time and effort. Through this system, you can quickly generate, collect and examine surveys. Performing all of these functions in one integrated web system saves you an extensive amount of time.
- 3) **Convenience:** It is very convenient for users to complete online feedbacks. Participants can fill out forms when they choose to and start and stop a survey at their ease.
- 4) **Accessibility:** Administering the feedbacks through an online system increases accessibility. Link of the survey can be sent via Gmail or any other

social networking platform. Respondents then have a variety of ways to access the forms including mobile phones, laptops, tablets, computers, etc.

5) **Anonymity:** Here even the administrator cannot view that which feedback was submitted by which student. With this feature student can give honest feedback without disclosing their identity.

6) **More Accurate:** Since it is computer generated report the calculation error which generally comes in manual is reduced and hence providing you with more accurate reports.

7) **Results:** As soon as student has completed the form, principal can view and analyse the reports. Through an online feedback management system, data can be presented in formats like percentage, graphs, pie charts, etc.

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

- Students may sometimes click the default answers for the questions
- Different set of feedback pages has to be created for different stakeholders

(vii). **Outcome**

- Paper less feedback has made a positive impact on all the stakeholders as it is very simple to use and manage.
- Considerable time has been saved for getting feedbacks from the stakeholders when compared with the traditional paper feedback system
- Usage of paper and printer has been reduced significantly

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**

Year	No. of Students benefited	Management Scholarship (Rs)
1 st year	9	1,48,000.00
2 nd year	31	8,26,500.00
3 rd year	39	11,66,500.00
4 th year	36	8,51,000.00
Total		29,92,000.00

(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

**Shanmuganathan Engineering College.
Arasampatti- 622 507**



Signature of the Chairperson, IQAC

**Principal
Shanmuganathan
Engineering College
Arasampatti - 622 507**

Annexure-I

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	“Green Environmental sustainability development in construction industry using response surface methodology	Dr. K.Ganesan	Volume: 18 Year of publications: Jan 2019	
2	Experimental studies on water absorption and sorptivity of Cashewnut shell ash in mortar	Dr. K.Ganesan	Volume: 3 Year of publications: September 2018 Issue :5	151-155
3	Study mechanical Properties on the partial replacement of aggregate with groundnut shell ash in concrete	Dr. K.Ganesan	Volume: 5 Year of publications: 2018 Issue :10	2393-2397
4	An Improved Authentication System Using Finger Vein Imaging	Dr.V.Sai Shanmugaraja N.Angayarkanni,	International Journal of Innovative Research in Computer and Communication Engineering, Volume. 7, Issue 1, January 2019. http://www.ijircce.com/upload/2019/january/32_Paper_Final_Angayarkanni_IJIR_CCE_N.pdf	176-187

5	PhishFind - An Enhanced Adaptive NeuroFuzzy Inference System Phishing Detection over Fog Networks	Mr. V. Ilayaraja B.Seetha,	International Journal of Innovative Research in Computer and Communication Engineering, Volume. 7, Issue 1, January 2019. http://www.ijircce.com/upload/2019/january/40 Paper Final Seetha IJIRCCE.pdf	359-371
6	Efficient File Download Time Reduction System for Multi-Client Fog/Cloud Environment	Mr.V.Janakiraman, K.Priyanga,	International Journal of Innovative Research in Computer and Communication Engineering, Volume. 7, Issue 1, January 2019. http://www.ijircce.com/upload/2019/january/38 Paper Final Priyanga IJIRCCE.pdf	341-350
7	“Multi user Visible Light Communication System for Reliable Wireless Communication”	R.Sornalatha, AP/ECE	<i>2017 IEEE International Conference on Computational Intelligence and Computing Research (ICCIC), Coimbatore, 2017,</i> Date of Conference: 14-16 Dec. 2017 Date Added to IEEE Xplore: 08 November 2018	pp. 1-6. INSPEC Accession Number: 18248611

			DOI:10.1109/ICCIC.2017.8524159 URL: http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8524159&isnumber=8523822	
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