Sri Sivasubramaniya Nadar College of Engineering

Rajiv Gandhi Salai (OMR)
Kalavakkam – 603 110
Kanchipuram Dist.

Annual Quality Assurance Report (AQAR) of the IQAC for 2016 - 17

Submitted to

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

P.O. Box No. 1075
Nagarbhavi
Bangalore – 560072

The Annual Quality Assurance Report (AQAR) of the IQAC for 2016 - 17

PART – A

AQAR for the year   2016 - 17

1. Details of the Institution

1.1 Name of the Institution   Sri Sivasubramaniya Nadar College of Engineering

1.2 Address Line 1   Rajiv Gandhi Salai (OMR)

Address Line 2   Kalavakkam – 603 110

City/Town   Kalavakkam

State   Tamil Nadu

Pin Code   603 110

Institution e-mail address   info@ssn.edu.in

Contact Nos.   044-27469700

Name of the Head of the Institution: Dr. S. Salivahanan

Tel. No. with STD Code: 044-27469752

Mobile: 09444189433

Name of the IQAC Coordinator: Dr. Srinivas Gumparthi

Mobile: 09444104060

IQAC e-mail address: ssniqac@ssn.edu.in

1.3 **NAAC Track ID** *(For ex. MHCOGN 18879)* TNCOGN14229

OR

1.4 **NAAC Executive Committee No. & Date:**
(For Example EC/32/A&A/143 dated 3-5-2004.
This EC no. is available in the right corner- bottom
of your institution's Accreditation Certificate)

1.5 Website address: www.ssn.edu.in

Web-link of the AQAR: http://www.ssn.edu.in/wp-content/uploads/2016/03/AQAR 2016-17.pdf

1.6 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1st Cycle	A	3.13	2011	5 Years
2	2nd Cycle	A+	3.55	2017	5 Years
3	3rd Cycle				
4	4th Cycle				

1.7 Date of Establishment of IQAC : 01.07.2009

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

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   Yes ☑   No ☐
      (AICTE)

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

Arts ☐   Science ☐   Commerce ☐   Law ☐   PEI (Phys Edu) ☐

TEI (Edu) ☐   Engineering ☑   Health Science ☐   Management ☑

Others   (Specify) | . |

1.11 Name of the Affiliating University *(for the Colleges)* | Anna University, Chennai |

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

Autonomy by State/Central Govt. / University | Applied for Autonomous and University Status |

University with Potential for Excellence [ ]   UGC-CPE [ ]

DST Star Scheme [ ]   UGC-CE [ ]

UGC-Special Assistance Programme [ ]   DST-FIST [ ]

UGC-Innovative PG programmes [ ]   Any other (*Specify*) [ ]

UGC-COP Programmes [ ]

2. IQAC Composition and Activities

2.1 No. of Teachers — 9

2.2 No. of Administrative/Technical staff — 5

2.3 No. of students — 2

2.4 No. of Management representative — 1

2.5 No. of Alumni — 2

2. 6 No. of any other stakeholder and
      community representatives (parent) — 1

2.7 No. of Employers / Industrialists — 1

2.8 No. of other External Experts — 1

2.9 Total No. of members — 22

2.10 No. of IQAC meetings held — 1

2.11 No. of meetings with various stakeholders:　　No.　[1]　Faculty　[✓]

Non-Teaching Staff [✓] Students [✓] Alumni [✓] Others [ ]

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. [ ] International [ ] National [ ] State [1] Institution Level [1]

(ii) Themes	1. Guest Lecture on "Managing across cultures" Mr. Manoj Raghavan, Exec VP, Tata Elxi Ltd 2. Special Lecture on "Consulting – A Practitioner's Perspective" Mr. Mohan Kancharla, Director, TCS

2.14 Significant Activities and contributions made by IQAC

> 1. Regular internal audits (twice in a year)
> 2. ISO 9001:2015 Quality standards awareness programmes

2.15 Plan of Action by IQAC/Outcome

The plan of action chalked out by the IQAC in the beginning of the year towards quality enhancement and the outcome achieved by the end of the year*

Plan of Action	Achievements
Risk Management – Mitigation Process	Risk Management Process is included in the scope of internal audits. Successfully completed Risk Assessment department wise
ISO 9002:2015 Standards implementation	Standards implementation was successfully completed
Quality Management Group	Awareness program is conducted on internal audit on ISO 9001:2015

2.15 Whether the AQAR was placed in statutory body　　Yes [✓]　　No [ ]

Management [✓] Syndicate [ ] Any other body [ ]

Provide the details of the action taken

AQAR report for 2016-17 is placed in the Governing Council meeting.

PART – B

Criterion – I
1. Curricular Aspects

1.1 Details about Academic Programmes

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
Ph.D.	10	1	11	-
PG	12	-	12	
UG	8	-	8	-
PG Diploma	-	-	-	-
Advanced Diploma	-	-	-	-
Diploma	-	-	-	-
Certificate	1	-	1	-
Others	-	-	-	-
Total	31	1	32	

Interdisciplinary	-	-	-	-
Innovative	-	-	-	-

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

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	All UG and PG programmes are of Semester pattern
Trimester	-
Annual	-

1.3 Feedback from stakeholders*   Alumni ✓ Parents ✓ Employers ✓ Students ✓
(On all aspects)

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.

> Being an affiliated institution, revision or updation is done by university. Many of our faculty are members in Board of Studies / Academic Council of the university

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

> Department of English has been recognized as Research Centre by Anna

Criterion – II

2. Teaching, Learning and Evaluation

2.1 Total No. of
permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others
276	102	126	48	-

2.2 No. of permanent faculty with Ph.D.

209

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

Asst. Professors		Associate Professors		Professors		Others		Total	
R	V	R	V	R	V	R	V	R	V
10	3	1	2	-	-	-	-	11	5

2.4 No. of Guest and Visiting faculty and Temporary faculty

8

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	225	61	15
Presented papers	356	58	0
Resource Persons	48	33	23

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

- Technology enabled learning
- Digital library
- Project based learning
- Involving students in research

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

180

2.8 Examination/ Evaluation Reforms initiated by
the Institution (for example: Open Book Examination, Bar Coding,
Double Valuation, Photocopy, Online Multiple Choice Questions)

Not Applicable

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

23

2.10 Average percentage of attendance of students

89.5

2.11 Course/Programme wise distribution of pass percentage :

Title of the Programme	Total no. of students appeared	Division				
		Distinction %	I %	II %	III %	Pass %
B.E. (EEE)	141	7.09	74.46	9.92	-	91.48
B.E. (ECE)	140	15.71	70.71	3.57	-	90.00
B.E. (CSE)	129	10.07	65.11	5.42	-	80.62
B. Tech. (IT)	130	6.15	79.23	3.07	-	88.46
B.Tech- (Chemical)	70	38.57	47.14	5.17	-	91.42
B.E. (BME)	62	11.29	82.25	1.61	-	95.16
B.E. (Mechanical)	140	17.85	72.85	4.28	-	95
B.E. (Civil)	71	7.04	67.60	7.04	-	81.69
M.E. (PED)	17	17.64	82.35	-	-	100
M.E. (AE)	12	41.67	58.33	-	-	100
M.E. (CS)	30	26.67	73.33	-	-	100
M.E. (VLSI)	34	38.23	61.76	-	-	100
M.E. (CSE)	29	3.44	82.75	6.89	-	93.10
M.E. (S/W Engg.)	12	-	83.33	8.33		91.67
M.Tech. (IT)	15	20	80	-	-	100
M.Tech. (Envi. Sci. & Tech.)	2	50.00	50.00	-	-	100
M.E. (Med. Electr.)	14	42.85	57.14	-	-	100
M.E. (Mfg. Engg.)	17	11.76	88.23	-	-	100
M.E. (Energy)	13	15.38	84.61	-	-	100
MBA	113	0	90.26	8.84	0	99.1

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2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes :

Each student is assigned a mentor who monitors the progress of the students under him and offers guidance. Each student is assigned a mentor who monitors the progress of the students under him and offers guidance. Every class in each department has a class committee formed for quality enhancement in teaching and learning process. The progress of the students is monitored by the Heads of the Departments after each of the three Internal Assessment Test Cycles. Students needing special attention are identified by the respective mentors and offered additional academic and counselling support. The IQAC sets the guidelines for this process and reviews it at the end of every semester. Changes and modifications are suggested by IQAC based on pass percentage, University ranks, placement statistics among other parameters

2.13 Initiatives undertaken towards faculty development

Faculty / Staff Development Programmes	Number of faculty benefitted
Refresher courses	9
UGC – Faculty Improvement Programme	2
HRD programmes	4
Orientation programmes	5
Faculty exchange programme	6
Staff training conducted by the university	14

Staff training conducted by other institutions	13
Summer / Winter schools, Workshops, etc.	58
Others	9

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	73	-	-	-
Technical Staff	68	-	1	-

Criterion – III

3. Research, Consultancy and Extension

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

The IQAC has been instrumental in initiating the Funding for Innovative Proposals Scheme(FIPS) to promote research culture among students and faculty. Dean (Research) calls for proposals from both students and faculty. The proposals received are scrutinised internally and then by a committee consisting of internal and external research experts. The most promising proposals are then funded by the SSN. Student projects are funded upto Rs. 30,000 and faculty projects are funded upto Rs.5 lakh per project. Over Rs. 1 crore worth of funding is provided to students and faculty every year. This scheme has been successful in generating interest among the students towards research and has led to even UG students publishing in international journals. In 2015-16 over 299 students published 253 papers in international journals. Incentives are given for faculty who have published research papers in refereed journals and guided Ph.D. scholars.

3.2   Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	9	27	8	41
Outlay in Rs. Lakhs	199.75	811.74	227.33	805.69

3.3   Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	2	0	22	1
Outlay in Rs. Lakh	5.39	0	16.24	4

3.4   Details on research publications

	International	National	Others
Peer Review Journals	492	8	
Non-Peer Review Journals	2	0	
e-Journals	11	1	
Conference proceedings	356	58	

3.5 Details on Impact factor of publications:

Range Upto 3.72 Average .391 h-index 61 Nos. in SCOPUS 370

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

EEE

Nature of the Project	Duration Year	Name of the funding Agency	Total grant Sanctioned (in lakhs)	Received (in lakhs)
Major projects		MNRE	22.9	0.29
		DST-SERB	45	0.25
		DST-SERB	1.0	5.13
Minor Projects				
Interdisciplinary Projects				
Industry sponsored				
Projects sponsored by the University/ College	2015-2016	SSN Trust	10.25	7.12
Students research projects	2015-2016	SSN Trust	5.74	3.93
Any other(Specify)				
Total			84.89	16.71

ECE

Nature of the Project	Duration Year	Name of the funding Agency	Total grant Sanctioned (in lakhs)	Received (in lakhs)
Major projects	2013-17	DST	50.00	
	2011-17	MCIT	77.00	11.60
	2016-17	Tamil Virtual Academy	9.52	2.84
	2016-18	ISRO	12.81	
	2016-18	DST-SERB	30.96	
	2016-17	DST-TIDE	22.78	
	2016-17	Tamil Virtual Academy	25.00	
Minor Projects	2014-2015	Linton University, Malaysia	4.39	
	2016-17	Murasu systems Sdn Bhd, Malaysia	4.00	
Interdisciplinary Projects				
Industry sponsored				
Projects sponsored by the University/ College	2016-17	SSN Trust	8.44	3.94
Students research projects	2016-17	SSN Trust	4.62	2.72
Any other(Specify)				
Total			249.52	21.1

CSE

Nature of the Project	Duration Year	Name of the funding Agency	Total grant Sanctioned in Rs in Lakhs	Received in Rs. In Lakhs
Major projects	3 Years, Open ended,9 months, 1 year	DST, nVIDIA – 3 GPU, Tamil Virtual Academy, Global health city	30.52	30.52
Minor Projects				
Interdisciplinary Projects				
Industry sponsored				
Projects sponsored by the University/ College	2 Years	SSN Trust	7.80	7.80
Students research projects				
Any other(Specify)				
Total			38.32	38.32

IT

Nature of the Project	Duration Year	Name of the funding Agency	Total grant Sanctioned (in Lakhs)	Received (in Lakhs)
Major Projects	Mar 2016-Aug 2016	Tamil Virtual Academy	9.52	5.42
	2017-2019	DST - TIDE	13.72	
Minor Projects	2016-2017	Murasu Systems Sdn Bhd, Malaysia	4.0	4.0
Interdisciplinary Projects				
Industry sponsored				
Projects sponsored by the University/ College	2016-2017	SSN Trust	2.55	2.64
Students research projects	2016-2017	SSN Trust	2.00	0.49
Any other(Specify)				
Total			31.79	12.55

Chemical

Nature of the Project	Duration Year	Name of the funding Agency	Total grant Sanctioned in Rs	Received in Rs.
Major projects	2016-19	DST-SERB	33.11 lakh	
	2016-19	SSN Trust	7.85 lakh	
Minor Projects				
Interdisciplinary Projects				
Industry sponsored				
Projects sponsored by the University/ College				

Students research projects				
Any other(Specify)				
Total			40.96 lakh	

BME

Nature of the Project	Duration Year	Name of the funding Agency	Total grant Sanctioned (in Lakhs)	Received (in Lakhs)
Major projects				
Minor Projects				
Interdisciplinary Projects				
Industry sponsored				
Projects sponsored by the University/ College	2016-18	SSN Trust	1.5	1.82
Students research projects *(other than compulsory by the University)*	2016-17	SSN Trust	1.74	0.23
Any other(Specify)				
Total			3.24	2.05

Mechanical

Nature of the Project	Duration Year	Name of the funding Agency	Total grant Sanctioned (in Lakhs)	Received (in Lakhs)
Major projects	2015-18 2017-20	DST	247.09	
Minor Projects				
Interdisciplinary Projects				
Industry sponsored				
Projects sponsored by the University/ College	2016-18	SSN Trust	12.67	4.16
Students research projects	2016-17	SSN Trust	6.09	4.22
Any other(Specify)				
Total			265.85	8.38

Civil

Nature of the Project	Duration Year	Name of the funding Agency	Total grant Sanctioned (in lakhs)	Received (in lakhs)
Major projects	2016-19	SERB, DST, Govt. of India	33.32	16.73
Minor Projects				
Interdisciplinary Projects				
Industry sponsored				
Projects sponsored by the University/ College	2016-18	SSN Trust	7.22	1.59
Students research projects	2016-17	SSN Trust	2.42	0.72
Any other(Specify)				
Total			42.96	19.04

S & H

Nature of the Project	Duration Year	Name of the funding Agency	Total grant Sanctioned (in lakhs)	Received (in lakhs)
Major projects	2014-2017	DST	10.14	6.00
	2015-2018	DST-WOSA	13.91	5.05
	2014-2017	DST-SERB	40.0	
	2014-2017	UGC-DAE	6.51	
	2015-2018	DRDO	50.25	
	2015-2019	MNRE	465	
	2016-2019	DST-YSS	18.8	
	2016-2019	CSIR	18.4	
	2017-2020	DST-WOSA	26	
	2017-2020	DST-SERB	24.5	
	2016-2019	DST-SERI	75	
	2016-2019	BRNS	30	
		DST, NRB	63.93	
Minor Projects				
Interdisciplinary Projects				
Industry sponsored				
Projects sponsored by the University/ College	2016-2017	SSN TRUST	18.00	17.83
Students research projects				
Any other(Specify)				
Total			860.44	28.88

3.7 No. of books published   i) With ISBN No.   `20`   Chapters in Edited Books   `12`

ii) Without ISBN No.   `1`

3.8 No. of University Departments receiving funds from

UGC-SAP `-`   CAS `-`   DST-FIST `1`

DPE `-`   DBT Scheme/funds `-`

3.9 For colleges   Autonomy `-`   CPE `-`   DBT Star Scheme `-`

INSPIRE `1`   CE `-`   Any Other (specify) `-`

3.10 Revenue generated through consultancy   `Rs. 11.16 Lakh`

3.11 No. of conferences organized by the Institution

EEE

Level	International	National	State	University	College
Number	1				
Sponsoring agencies	SSN Trust, CTS, IEEE Madras Section				

ECE

Level	International	National	State	University	College
Number	1				
Sponsoring agencies	ISRO, IEEE, IEEE ComSoc, SSNCE, SERB, Pearson, Conf				

CSE

Level	International	National	State	University	College
Number	1				
Sponsoring agencies	IEEE, Cognizant Technology Solutions, ISRO, SSN Trust				

Chemical

Level	International	National	State	University	College
Number	1	5	Nil	Nil	Nil
Sponsoring agencies	Nil	SSN Trust	Nil	Nil	Nil

BME

Level	International	National	State	University	College
Number	1				
Sponsoring agencies	IEEE				

Mechanical

Level	International	National	State	University	College
Number		1			
Sponsoring agencies		SSN TRUST			

S&H

Level	International	National	State	University	College
Number		5	2		
Sponsoring agencies		AERB,BRNS, BHAVINI,DST, SSN Trust,,Karadi path Educational Co. Pvt. Ltd, Entrayn Educational Technologies Pvt. ltd	SSN TRUST		

3.12 No. of faculty served as experts, chairpersons or resource persons `111`

3.13 No. of collaborations   International `5`   National `33`   Any other `-`

3.14 No. of linkages created during this year `7`

3.15 Total budget for research for current year in lakhs :

From funding agency `Rs.349 Lakh`   From Management of University/College `Rs. 359 Lakh`

Total `Rs. 708 Lakh`

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	5
	Granted	1
International	Applied	-
	Granted	-
Commercialised	Applied	-
	Granted	-

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

Total	International	National	State	University	Dist	College
46	12	23	0	1	0	10

3.18 No. of faculty from the Institution
    who are Ph. D. Guides `149`
    and students registered under them `407`

3.19 No. of Ph.D. awarded by Anna University faculty from the Institution `21`

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

JRF `51`   SRF `5`   Project Fellows `19`   Any other `2`

3.21 No. of students Participated in NSS events:

University level `100`   State level `72`

National level `4`   International level `-`

3.22 No. of students participated in NCC events: Not Applicable

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: Not Applicable

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

3.25 No. of Extension activities organized

University forum	-	College forum	-
NCC	-	NSS	19

Any other   12

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

Sl. No.	Name of the Event	Date	Venue	No. of Volunteers participated
1	Campus cleaning	04.04.2017	SSN CE	50
2	Orphanage visit	04.03.2017	Annai Fathima illam, Karapakkam	40
3	Blood donation	28.02.2017	SSN CE	25
4	Hospital cleaning	19.02.2017	Kilpauk Govt. Hospital	40
5	Beach Cleaning	18.02.2017	Marina beach, Chennai	40
6	Stem cell registration campaign	11February 2017	SSN CE	30
7	Village camp	26-28 January 2017	Siruthavur, Kancheepuram Dt.	70
8	Orphanage visit	02.10.2016	Arul illam, Kolapakkam	40
9	Campus cleaning camp	28-09-2016	SSN CE	40
10	Blood donation	15.09.2016	SSN CE	25
11	Eye Camp	06.09.2016	SSN CE	20
12	Study camp on 'Child and Drug abuse	05.08.2016	SSN CE	30

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	157007	12828	SSN Trust	169835
Class rooms	10042 (114 Nos.)	-	SSN Trust	10042 (114 Nos.)
Laboratories	17946 (90 Nos.)	-	SSN Trust	17946 (90 Nos.)
Seminar Halls	5166 (16 Nos.)	-	SSN Trust	5166 (16 Nos.)
No. of important equipments purchased (≥ 1-0 lakh) during the current year.	41	11	SSN Trust	52
Value of the equipment purchased during the year (Rs. in Lakhs)	409.3	117.42	SSN Trust	526.72
Others	-	-	-	-

4.2 Computerization of administration and library

- Koha Software is installed in Central Library which enables campus wide access.
- Administrative Departments are computerised and all faculty members provided with laptops and computers.

4.3 Library services:

	Existing		Newly added		Total	
	No.	Value in Rs.	No.	Value in Rs.	No.	Value in Rs.
Text Books	66962	26,499,448	7174	1,575,443	7142	28,074,891
Reference Books	3119	9,362,554	52	370,331	3171	9,732,885
e-Books	641	171,157	-	-	641	187,785
Journals	245	3,729,918	-	-	250	3,751,254
e-Journals	5652	4,290,882	-	-	6456	63,52,581
Digital Database	11	4,933,730	-	-	11	63,52,581
CD & Video	397	197,589	-	-	397	197,589
NPTEL Video	110	100,000	-	-	110	100,000
NPTEL Web Courses	129	100,000	-	-	129	100,000
Book Bank	854	271620	-	-	854	271620

4.4 Technology up gradation (overall)

	Total Computers	No. Of Computer Labs	Internet	Browsing Centres	No. of Computer Centres	No. of Office	No.of Depart-ments	Others
Existing	2224	1668	155+155 Mbps		24	57	475	
Added								
Total	2224	1668	310 Mbps		24	57	475	

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

- MOOCs and workshops on technology enabled learning conducted every year.

- First year students from rural areas are given an orientation on technology and internet usage.

4.6 Amount spent on maintenance in lakhs :

   i) ICT

   Rs. 62 Lakh

   ii) Campus Infrastructure and facilities

   Rs. 738 Lakh

   iii) Equipments

   Rs. 78 Lakh

   iv) Others

   Rs. 37 Lakh

   Total :

   Rs. 916 Lakh

Criterion – V
5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

1. IQAC in consultation with the Placement cell discussed strategies to enhance placements for the final year students.

2. The Placement cell explored suitable Training Partner to train the students for campus interviews.

3. The placement officer addressed the students about the need to attend placement training and the benefits thereof.

5.2 Efforts made by the institution for tracking the progression

> 1. The college signed up Placement Training agreement with Vista Mind to train the students on Quantitative aptitude, logical reasoning and verbal aptitude.
>
> 2. The placement cell also organized training session with alumni students on how to prepare Resume and attend GD / personal interviews.
>
> 3. The placement officer randomly sat through the training sessions, collected feedback from the students and suggested corrective actions to the training partner.

5.3 (a) Total Number of students

UG	PG	Ph. D.	Others
3619	543	**457**	

(b) No. of students outside the state

129

(c) No. of international students

28

Men

No	%
2725	59

Women

No	%
1894	41

Last Year						This Year					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
1301	456	19	2473	6	4255	1494	452	19	2650	4	4619

Demand ratio   1:17   Dropout Less than 1%

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

> Placement Training
>
> Career development guidance
>
> Personality Development Programs
>
> Information on competitive examination in the library

No. of students beneficiaries

All students placed

5.5 No. of students qualified in these examinations

NET [-]   SET/SLET [-]   GATE [24]   CAT [5]

IAS/IPS etc [-]   State PSC [-]   UPSC [-]   Others [33]

5.6 Details of student counselling and career guidance

1. Individual counselling: 54 students
2. Psycho educational program: 1 program
   (150 students)

No. of students benefitted   204

5.7 Details of campus placement

On campus				Off Campus
Sl. No.	Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
1.	Dow Chemicals	54	3	
2.	Amazon.com	218	1	
3.	Real Image Media Technology, Chennai.	189	1	
4.	Coda Global, Chennai.	318	5	
5.	Dell (Networking)	168	7	
6.	Xome	203	3	
7.	ThoughtWorks Technology	428	2	
8.	TCS CTO	11	1	
9.	Juspay	210	1	
10.	Nationstar Mortgage	142	8	
11.	Temenos	111	8	
12.	Sirius	150	2	
13.	Mu Sigma	581	7	
14.	Zoho Corporation	582	13	
15.	Zoom RX	438	13	
16.	Fidelity	225	14	
17.	Trimble Solutions	33	2	
18.	Zifo R&D Solutions	80	6	
19.	Fresh Desk	148	11	
20.	Latent View Analytics	416	5	
21.	GoFrugal	590	3	
22.	AstraZeneca	84	5	
23.	Intellect Design	169	8	
24.	Verizon	192	4	
25.	Multicoreware	18	1	
26.	CTS	514	234	
27.	TCS Summer intern cum offer	91	5	
28.	L&T Construction (ECC)	143	5	
29.	Infosys	664	176	
30.	Accenture	518	263	
31.	Wipro	462	92	
32.	Infotrellis, Chennai.	169	3	
33.	Soliton	97	1	
34.	Capgemini	85	3	
35.	ELGi	126	3	
36.	L&T Infotech	152	6	

37.	Hyundai Motors India	52	1	
38.	Maveric Systems	57	3	
39.	TATA Communications	165	6	
40.	Amazon cloud support Engineer	121	2	
41.	Ashok Leyland	46	6	
42.	Johnson Contorls	35	2	
43.	Sanmar Groups	103	5	
44.	Fuji Xerox, Japan.	64	1	
45.	EY, Chennai.	66	9	
46.	Hexagon, Hyderabad.	67	3	
47.	BA Continuum Ltd, Chennai.	110	19	
48.	Visual Bi, Chennai.	30	1	
49.	Mytrah Energy (India) Pvt. Ltd, Hyderabad.	155	5	
50.	Nokia, Chennai.	33	5	
51.	Renault Nissan, Chennai.	230	15	
52.	HCL, Noida.	119	11	
53.	Newgen, Chennai.	66	1	
54.	Photon, Chennai.	45	13	
55.	Zoho Corporation (Content Role)	20	1	
56.	MRF Ltd	81	3	
57.	SAP Labs India, Bangalore.	95	2	
58.	Rotork, Chennai.	33	2	
59.	Radial Omnichannel Technologies India Pvt Ltd	22	4	
60.	Visteon, Chennai.	61	5	
61.	CSS Corp, Chennai.	49	2	
62.	HCL (BME), Noida.	36	5	
63.	National Payments Corporation.	29	2	
64.	Lucid Software	48	1	
65.	Pipecandy, Chennai.	34	1	
66.	Royal Enfield, Chennai.	41	1	
67.	SPIC, Chennai.	17	3	
68.	Philips Healthcare	20	1	
69.	iYantras (Airbots)	55	1	
70.	TheMediTube, Chennai.	91	1	
71.	SportsMechanics	40	4	
72.	Manali Petrochemicals	17		2
73.	Toshiba Machine	17	1	
74.	IDBI Federal Insurance	217	111	
75.	CBRE South Asia Pvt. Ltd	10		3
76.	Deliotte	12	2	
77.	TCS	54	12	
78.	HDFC AMC	9	5	
79.	ITC Ltd	14	3	
80.	Mobius	17	2	
81.	HCL Technologies	62	28	
82.	Neeyamo Entreprises	10	1	
83.	Precision Equipments	12	3	
84.	Berger Paints	7	1	
85.	Photon Infotech	48	3	
86.	Bandhan Bank	6	6	
87.	Yes Bank	7	3	

88.	TVS Tyres	19	1	
89.	Flintobox	16	1	
90.	ICICI Securities - Equity Div	1	1	
91.	Amaraja Group	1	1	
92.	MRO Simple & HofinCons	28	2	
93.	City Union Bank	20	6	
94.	Credit Mantri	13	2	
95.	Nationstar Mortgage	3	1	
96.	Cavinkare	1	1	
97.	Assess People Assessment Pvt Ltd	18	1	
98.	Smartmegh	9	6	
99.	HTC Global Sevices	9	1	
100.	Livia Polymers	1	1	
101.	Butterfly Kitchen Appliances	8	1	

5.8 Details of gender sensitization programmes

Lectures were arranged on importance of women education and corresponding increase in socio-economic equality

5.9 Students Activities

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

State/ University level [107] National level [52] International level [9]

No. of students participated in cultural events

State/ University level [ ] National level [520] International level [ ]

5.9.2   No. of medals /awards won by students in Sports, Games and other events

Sports : State/ University level [41] National level [34] International level [-]

Cultural: State/University level [ ] National level [61] International level [ ]

5.10 Scholarships and Financial Support

	Number of students	Amount in Rs. Lakh
Financial support from institution	430	320.97
Financial support from government	545	140.79
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 [   ]

Exhibition: State/ University level [9]   National level [10]   International level [1]

5.12   No. of social initiatives undertaken by the students   [20]

5.13 Major grievances of students (if any) redressed: No major grievance.

Criterion – VI

6. Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

> **Vision Statement**
>
> To be a world-class institution for technical education and scientific research for the public good.
>
> **Mission Statement**
>
> **SSN will strive continuously to**
> - Make a positive difference to the society through education
> - Empower students from all socio-economic strata to level the academic and professional playing field
> - Be a centre of excellence in education in emerging technologies in tandem with the industry and industrial trends
> - Build world class research facilities on par with the finest in the world and broaden students' horizons beyond classroom education
> - Nurture talents and entrepreneurship and enable all-round personality development in students

6.2 Does the Institution has a management Information System

> - Academic Planner
> - Institutional Budget & Planning
> - Monthly Performance Report
> - Semester wise Quality Audit Reports
> - Management Review Reports (QMS)
> - Faculty Appraisal Reports

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

6.3.1 Curriculum Development

By Anna University. Faculty of SSN are on Board of Studies of the University to suggest changes in curriculum.

6.3.2 Teaching and Learning

By organising
- Additional expert lectures
- Interaction with practising managers,
- Seminars and workshops on pedagogy
- Research seminars
- Internships

6.3.3 Examination and Evaluation

By Anna University

6.3.4 Research and Development

- Research Advisory Council advises on focussed research in Engineering, Technology, Science and Management
- Funding by SSN Trust for projects of faculty and students

6.3.5 Library, ICT and physical infrastructure / instrumentation

- Upgradation of Library system on annual basis
- By augmentation of e-learning resources

6.3.6 Human Resource Management

- Incentives for research
- Performance based incentive
- Travel grant
- Welfare Schemes such as 50% payment of house loan interest
- Subsidised group medical insurance
- Professional Skill Allowance
- Sponsorship for upgrading educational qualifications

6.3.7 Faculty and Staff recruitment

1. Advertisements in national news papers
2. Through referrals by academic and industry experts

6.3.8   Industry Interaction / Collaboration

- Encouraging students to take up industry oriented projects
- Invited guest lectures from industry
- Industry visits
- Involving faculty and students in industry consultancy

6.3.9   Admission of Students

The admission for 35% of the seats is conducted by consortium of Self Financing colleges. Merit is the only criterion be it in general stream or reserved stream. Of these seats
1. 25 seats are reserved for top rankers in various boards with full scholarships
2. 25 seats for sportspersons with full scholarship to pursue and higher education
3. 25 seats for meritorious students from rural areas with full scholarships.
The remaining 65% seats are filled through the Anna University single window counselling.

6.4 Welfare schemes for

Teaching	• Tuition fee concession for wards of faculty studying at SSN • Subsidised food at canteen • Free Transportation • Subsidized Medical Insurance • Subsidy on Housing loan interest
Non teaching	• Reimbursement of children tuition fee • Deepavali Bonus • Subsidized Medical Insurance • Free transportation
Students	• Group Insurance

6.5 Total corpus fund generated   :   NIL

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	TUVNORD	Yes	QMG
Administrative	Yes	TUVNORD	Yes	QMG

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

For UG Programmes   Yes [ ] No [✓]

For PG Programmes   Yes [ ] No [✓]

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

- Alumni meet (TRIBUTE) annually on First Saturday of January every year.
- Scholarship support from Alumni
- Alumni interaction with pre-final and final year students
- Assistance in providing internships & placements
- Workshops and mentoring

6.12 Activities and support from the Parent – Teacher Association

> Support is sought from the parents in monitoring the progress of their wards.
> (a) Orientation on opening day for freshers
> (b) Scholarships award function
> (c) College day
> (d) Graduation day

6.13 Development programmes for support staff

> Increments are given for obtaining higher degrees and they are sponsored for training where ever necessary

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

1. Tobacco free campus.
2. A large number of trees planted to supplement green canopy of the campus.
3. Motorised two wheelers banned for students in the campus to reduce carbon footprint.
4. Spaces in the campus earmarked for parks and green belts.
5. Water Treatment Plant installed to recycle water.
6. Recycled water used for gardening and landscaping.
7. Rainwater harvesting implemented for all buildings.

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.

The institution has conducted a Green Audit of its campus and facilities. The virgin greenery of the campus is maintained. To compensate for the loss of greenery due to the built up area, extensive green coverage has been created. The sewage is treated with a full fledged STP, and the treated water is extensively used to maintain the lawn and watering the trees. Periodical maintenance is done to the STP, so that it functions efficiently throughout the year without interruption.

The rain water is diverted through wide green shallow channels spread over the entire campus which are connected to a pond located on the North East end of the campus, thus ensuring the conservation of rainwater. The college is about 5 km from the sea, and deep wells will result in saline water intrusion and hence, all the sixteen wells spread over the entire campus are shallow, not more than 10m deep. There is a network of well laid out lined channels, which, during heavy rains, discharge the surface water in to the *nallah* there by preventing flooding.

The bank of solar panels located in the open terrace, is essentially used for research; yet, it is used to light partially the street lamps in the campus during nights. A wind mill is on the cards for erection, near the EEE block.

The power position is rather bleak in the state; hence, we are left with no alternative other than relying on the diesel power for the effective running of the Institute. Perhaps, after commissioning of the second unit of IGCAR, the reliance on the DG sets may decrease.

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

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- Detailed report is provided Management Review Reports of the individual department

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7.3 Give two Best Practices of the institution *(please see the format in the NAAC Self-study Manuals)*

(a) Usage of electronic media in teaching & Learning

This is being extensively used for almost all the courses, so that the student is able to understand the topic better.

The aim is to see that the student has a clear perception of what is being taught and he is able to pursue it on his own, based on the material provided by the instructor.

The faculty teaching a subject splits the syllabus into convenient modules, so that the prerequisites of one module have already been taught to the student earlier, and there is cogency. For each module, he/she prepares a set of information, sketches, graphs etc. and uploads it in the intranet, which the student can browse and see and understand at his own pace and comes prepared to the following class. The teacher elaborates the uploaded notes with illustrations or case studies or even videos, so that the topic gets embedded into the minds of the students. In addition, he gives a set of locations, where additional explanations are given or where information for further studies is available.

http://www.ssn.net/twiki/bin/view/PhyIntranet/PhyElearning
http://www.ssn.net/twiki/bin/view/EceIntranet/EceEngPhy-A-15

(b) Early induction of a student into research

      The aim is to create a curious and enquiring mind and apply the conceptual learning to practical projects. Exposure to research develops a structured and logical thinking process and a few of the outstanding students may be attracted to a career in research.

      Students are tagged to faculty and senior students and work on research projects leading to publication in refereed international journals.

(c) Inculcating personality development in students

      The college encourages students to participate in workshops, seminars such as MUN, EDC NSS, YRC, Good Citizens Forum and various students organised club activities are held in the institution, which help the holistic development of the students.

7.4 Contribution to environmental awareness / protection

> Green and clean environment is imbibed in every activity of SSN. Environmental protection is a cultural aspect of SSN.

7.5 Whether environmental audit was conducted?   Yes [ ]   No [✓]

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

SWOC analysis of the Institution and Future plans:

Strengths:

- Dedicated and qualified faculty with diverse research interests
- 250 acre campus with state-of-the-art infrastructure
- Well-equipped labs and digitally enabled classrooms for effective learning
- Large number of externally funded research projects
- Meritorious students, many with interest in research
- Students winning several external awards in recognition of their projects
- Academic collaboration with Institutes of international repute, like Carnegie Mellon University
- Periodic research interventions like International and National Conferences and workshops on varied topics
- Structured system for inducting students into research at an early stage
- Seed funding by SSN Trust for promising research proposals of faculty and students
- Culture of all-round development in Academics, Sports, Music and Arts
- A large number of MoUs with industries and educational institutions of eminence.
- Innovation Centre and Incubation Centre to promote creativity and entrepreneurship
- Ranked among the top ten private engineering colleges in India by reputed agencies

Weaknesses:

- Limiting influence of affiliation status in curriculum, syllabi and forging external relationships
- Improvement required in Industry-Institute Interaction

Opportunities:

- Good recognition in industry circles evidenced by placement of students. This can help in building stronger links with industry in consultancy.
- Talented students who can be channelized into leadership positions in the years to come.
- Interaction with ASSOCHAM, CII, FICCI, IMTMA and professional bodies
- Tapping the knowledge resources of Alumni who are pursuing successful careers in industry or as Entrepreneurs.

Challenges:

- Commercialisation of the research work done in the Institution and converting them for industrial application
- Being an affiliated institution, it is difficult to integrate the rapidly changing technology
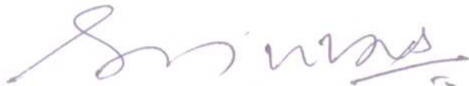
Future Plans

- To obtain autonomous or University status
- To diversify and offer programs in humanities and sciences
- To increase focus on product development and incubation of startups on campus

8. Plans of institution for next year

Adding new programmes

Increasing the intake in existing programmes

Augmentation of infrastructure

Dr. Srinivsas Gumparthi

Signature of the Coordinator, IQAC

Dr. S. Salivahanan

Signature of the Chairman, IQAC