# Annual Quality Assurance Report (AQAR)

**Submitted by** 

# CharutarVidyamandal's



# Institute of Science & Technology for Advanced Studies & Research (ISTAR)

(Affiliated to Sardar Patel University & Gujarat Technological University)

Vallabh Vidyanagar-388120, Gujarat

www.istar.edu.in

Email: istarcvmvvn@yahoo.co.uk

I/c Principal:Dr.Nirmal Kumar, J.I

**Coordinator:Dr.Jigar V Patel** 

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June, 2017

# INSTITUTE OF SCIENCE & TECHNOLOGY FOR ADVANCED STUDIES & RESEARCH

(MANAGED BY CHARUTAR VIDYAMANDAL) Accredited 'A' Grade by NAAC & Knowledge Consortium of Gujarat Sardar Patel Centre for Science & Technology, Post Box No.13, Vallabh Vidyanagar-388 120. Dist. Anand (Gujarat), INDIA Ph: (02692) 234955/234368 Fax: 02692-234955 E-mail: istarcvmvvn@yahoo.co.uk Web: www.istar.ac.in

ISTAR/OF/2017-18/ 305

Date: 20th July, 2017.

To, The Director, NAAC, P.O.Box: 1075, Nagarbhavi Banglore-560072 Karnataka

Subject: Submission of AQAR

Ref: Track ID - GJCOGN16891

Dear Sir,

We herewith submit the soft copy of AQAR for the academic year 2016-17.

Thanking you,

Yours sincerely,

Dr. Jigar V. Patel. **IQAC** Coordinator

Dr.Nirmalkumar J. I. I/C Director

# Part – A

AQAR for the year	2016-17			
<ul><li>1. Details of the Institution</li><li>1.1 Name of the Institution</li></ul>	Institute of Science & Technology for Advanced Studies & Research (ISTAR)			
1.2 Address Line 1	Sardar Patel Centre for Science & Technology			
Address Line 2	Mota Bazaar			
City/Town	VallabhVidyanagar			
State	Gujarat			
Pin Code	388120			
Institution e-mail address	istarcvmvvn@yahoo.co.uk			
Contact Nos.	02692-234955, 02692-234368			
Name of the Head of the Institu	ution: Dr.NirmalKumar,J.I			
Tel. No. with STD Code:	O: +91-2692-234368 R: +91-2692-233952			
Mobile:	+91-9825968242			
Name of the IQAC Co-ordinator:	Dr.Jigar V Patel			
Mobile:	+91-9898261951			
IQAC e-mail address:	director@istaradm.co.in			

1.3 NAAC Track ID(For ex. MHCOGN 18879)	GJCOGN16891
OR	

1	4	NA	$\mathbf{A}\mathbf{C}$	Executive	Committee	Nο	& Dat	6.

EC (SC)/03/AQA/04 dated 24-09-2014

(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.istar.edu.in	
Web-link of the AQAR:	Istar.edu.in/doc/AQAR2016-17.PDF	

#### 1.6 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 <sup>st</sup> Cycle	A	3.1	2014	5 years
2	2 <sup>nd</sup> Cycle				
3	3 <sup>rd</sup> Cycle				
4	4 <sup>th</sup> Cycle				

1.7 Date of Establishment of IQAC: DD/MM/YYYY 03/04/2012

AQAR for the year: 2016-17

1.8 Details of the previous year's AQAR submitted to NAACafterthe latest Assessment and Accreditation by NAAC ((for example AQAR 2010-11submitted to NAAC on 12-10-2011)

Submitting second time after NAAC Accreditation:

- i.AQAR2015-16 submitted to NAAC on 18-07-2016
- ii. AQAR 2016-17 submitted to NAAC on 19-07-2016
- 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 V
(eg. AICTE, BCI, MCI, PCI, NCI)
(eg. Meth, bel, wel, tel, wel)
Type of Institution: Co-education $\sqrt{}$ Men Women
Urban Rural √ Tribal
Financial Status: Grant-in-aid UGC 2(f) $\sqrt{}$ UGC 12B $\sqrt{}$
Grant-in-aid + Self Financing Totally Self-financing   √
1.10 Type of Faculty/Programme
Arts Science \( \sqrt{\sqrt{ Commerce}} \) Commerce Law PEI (PhysEdu)
TEI (Edu) Engineering   ✓ Health Science Management
Others (Specify)  MCA
1.11 Name of the Affiliating University (for the Colleges)  Sardar Patel University & Gujarat Technological University
1.12 Special status conferred by Central/ State Government:UGC/CSIR/DST/DBT/ICMR etc. Nil
Autonomy by State/Central Govt. / University Nil
University with Potential for Excellence Nil UGC-CPE Nil
NII Mag an NII
DST Star Scheme Nil UGC-CE Nil
UGC-Special Assistance Programme  DST-FIST  Nil  Nil  Nil

2. IOACCon	ıposi1	tion and Activities			
2.1 No. of Te			5		
2.2 No. of Ad	lminis	strative/Technical staff			
2.3 No. of stu	dents		4		
2.4 No. of Ma	anage	ment representatives	1		
2.5 No. of Al	umni				
2. 6 No. of an	ny otł	ner stakeholder and	1		
community re	eprese	entatives			
2.7 No. of En	nploy	ers/ Industrialists	2		
2.8 No. of ot	her E	xternal Experts	2		
2.9 Total No.	of m	embers	16		
2.10 No. of IO	QAC:	meetings held			
2.11 No. of m	neetin	gs with various stakeho	olders:	No. 3	Faculty 1
Non	-Teac	ching Staff Students	1	Alumni	1 Others
2.12 Has IQA	C rec	ceived any funding from	n UGC during the	year? Yes	No 🗸
If y	yes, m	nention the amount			
2.13Seminars	and	Conferences (only qual	ity related)		
(i) No. (	of Ser	minars/Conferences/ W	orkshops/Sympos	sia organized b	y the IQAC
Total Nos.	0	International	National	State	Institution

(ii) Themes

# 2.14 Significant Activities and contributions made by IQAC

- Academic Audit of staff members using feedback from students
- Encouraging departments to arrange more seminars/conferences etc.
- Effort for improving academic standards
- Orientation programme for fresher students
- Introduction of Weekly test
- Strengthening research work
- Strengthening laboratory facilities

# 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
Orientation for freshers	Orientation for freshers was done by Head of the Institution&IQACCo-ordinator
Academic Audit of teachers	Implemented
Common academic calendar for science & interdisciplinary courses in S.P University	Common academic calendar implemented for all science & interdisciplinary courses in S.P University
Continuous evaluation of students using Quiz, test ,seminar etc.	Implemented
Consultancy and sponsored research	Prepared policy document for GNFC Seven Seas ,Delhi &Pidilite, Mumbai sponsored research work started
Strengthening research work	20 students are at present pursuing Ph.D. and one student doing his post-doctoral research
Initiatives for increasing students strength	Admission counselling started from the month of October ,2016.Institutions within and outside the state were visited by the teaching faculty Conducted courses for UG students for improving student strength
Emphasis on short term certificate courses	Many certificate courses started  FDP in association with IIRS ( ISRO) and National  Instruments through web seminar

Encouraging departments to	18seminars/workshops arranged by different
conduct seminars & workshops	departments
Encouraging staff for research	Submitted research proposals to various funding
activities	agencies
Improving teaching learning	Teaching learning process improved through regular
process	web seminars
Encouraging students for	Many students participated in various cultural and
participation in sports & cultural	sports activities organized by the Institute and
events	University
Strengthening lab facilities	Purchased hardware and soft wares for GIS course

2.16 Whether the AQAR was placed	in statutory body	Yes   √	No
Management √	Syndicate	Any other bo	ody
Provide the details of the a	ction taken		

The AQAR was placed before IQAC of the Institution. It was reviewed by the committee and suggestions were incorporated and subsequently Management approval was taken.

# 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
PhD	06			
PG	13			
UG			All	
PG Diploma	01		programmes	
Advanced Diploma			are self-	
Diploma			financing	
Certificate	02			
Others				
Total	22			
			·	
Interdisciplinary	12		All	

Interdisciplinary	12		All
		progr	rammes
Innovative		are	e self-
		fina	nncing

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

Pattern	Number of programmes
Semester	13

1.3 Feedback from stakeholders* Alumni	✓ Parents ✓ Employers ✓	,
Students	$\checkmark$	

(On all aspects)
Mode of feedback: Online   √ Manual  √
Co-operating schools (for PEI)
*Please provide an analysis of the feedback in the Annexure
1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient
aspects.
Syllabus of M.Sc. (Environmental Science & Technology) was updated in 2016-17, giving more focus on addition of Remote Sensing & GIS as a special paper in Semester – II. Induction of topics e.g. Restoration Ecology, Climate Change, in different papers with new code numbers was done.
Syllabus of M.Sc. (Information Technology) was updated. This Syllabus will be implemented on this academic year (2017-18).
Syllabus of M.Sc. (Instrumentation & Control) revised according to industry demands, New topics based on Distributed Control System (DCS) and SCADA, Advanced topics in Microcontroller and its applications.
OC- As stated earlier one of the faculty is member of board of studies and committee member in designing the syllabus. Necessary changes in the syllabus are suggested as demand from the industrial professionals.
Master of Industrial hygiene and safety department upgraded the syllabus giving importance to SAMA/IS coding and performance cycle model
Packaging, printing inks, and corrosion technology have been incorporated in the syllabus

of M.Sc. Surface Coating Technology.

MT- Syllabus of M.Sc. Mobile Technology was restructured and applicable from academic

year 2017-18.

Syllabus of P G Diploma in Geoinformatics program is changed as per the feedback of passed out students and as per industry demand.

Syllabus of MCA was updated in 2016-17.

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

Two New Department Established for conducting following new courses from academic year 2016-17.

- M.Sc. in Geoinformatics
- M.Sc. in Mobile Technology & Applications

Laboratories for above courses are established and training given to concerned Faculty members at IIRS (ISRO) and during in-house faculty Development program.

# CRITERION - II

# 2. Teaching, Learning, and Evaluation

Total	AdhyapakSahayak	Asst. Professors	Associate Professors	Professors	Director
25	6	14	01	02	01

- 2.1 Total No. of permanent faculty
- 16

14

- 2.2 No. of permanent faculty with Ph.D.
- 2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year

Asst. Pr	ofessors	Assoc Profes		Profe	essors	Oth	ners	Adhyapal	«Sahayak
R	V	R	V	R	V	R	V	R	V
00	05	00	00	00	00			05	00

2.4 No. of Guest and Visiting faculty and Temporary faculty

Visiting: 62

Temporary: 06

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended Seminars/ Workshops	04	24	13
Presented papers	02	14	02
Resource Persons	01	04	07

- 2.6 Innovative processes adopted by the institution in Teaching and Learning:
  - WIFI Campus for faculty & students to make use of internet for study and research
  - Use of multimedia projectors
  - Encouragement for participation in various state/national level competitions
  - Web Seminars
  - Remedial class and crash course for weak learners
  - NPTEL video lectures
  - In-plant / Industrial training
- 2.7 Total No. of actual teaching days during this academic year

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

System of S.P.University and G.T.U, Gujarat is followed

2.9 No. of faculty members involved in curriculum

15

Restructuring/revision/syllabus development

as member of Board of Study/Faculty/Curriculum Development workshop

2.10 Average percentage of attendance of students

80

# 2.11 Course/Programme-wisedistribution of pass percentage:

	Total No. of		Division	
Title of programme	Students	Distinction %	First Class %	Pass %
Industrial Chemistry	70	13	41	98.6
Instrumentation & Control	4	3	1	100
Polymer Science & Technology	28	42.85	53.57	100
Organic Chemistry	32	08	19	97
Information Technology	20	07	12	92
Surface Coating Technology	26	07	61.5	100
Environmental Science & Technology	32	50	37	100
Master of Industrial Hygiene	15	66.66	6.66	100
Master of Valuation (Real Estate)	18	50	3	100
Master of Valuation (Plant & Machinery)	25	Project Viva going on		
MCA	08	03	02	75%

Mobile Technology	01	01		
Geoinformatics	8	6	2	

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

- The co-ordinator of IQAC is invited whenever Principal arranges meeting of all HODs for providing suggestions regarding quality improvement in teaching-learning
- The IQAC team regularly contacts teachers of all departments and carry out analysis of various academic activities and action plans are prepared accordingly.
- Feed back is taken from the students twice a year and accordingly counseling is arranged for concerned teaching staff if required.
- Continuous evaluation through Assignments, Unit tests ,Seminars etc.
- Established Photocopier for students to make photocopy of their documents.
- Provided sufficient number of computers to fulfill the students need.

### 2.13 Initiatives undertaken towards faculty development

Faculty / Staff Development Programmes	Number of faculty benefitted
Refresher courses	
UGC – Faculty Improvement Programme	
HRDprogrammes	
Orientation programmes	
Faculty exchange programme	
Staff training conducted by the university	02
Staff training conducted by other institutions	INST-04 (IIRS, Dehradun), GEO-04=08
Summer / Winter schools, Workshops, etc.	EST-03, IC-08, IT-01, INST-02, MT-01=15
Others	MIHS

# 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	09	00		
Technical Staff	20	00		

# CRITERION – III

# 3. Research, Consultancy, and Extension

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

IQAC team had many formal and informal meetings with the research coordinator of the institute and valuable inputs & suggestions were given for encouraging staff to apply for more research projects from various funding agencies

During the meetings conducted by IQAC with all teaching staff, special emphasis has been given on promoting research culture in the institute

All HoDs are encouraged to conduct seminars/ workshops/ conferences in the institute. They are also encouraged to enrol more Ph.D students

Industry sponsored research work and consultancy is given higher priority and good results achieved.

# 3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	1			1
Outlay in Rs. Lakhs	12,31,000			20,00,000

# 3.3 Details regarding minor projects

	Completed	On-going	Sanctioned	Submitted
Number	1	1		
Outlay in Rs. Lakhs	100000	195000		

# 3.4 Details on research publications

	International	National	Others
Peer Review Journals	45	18	
Non-Peer Review Journals	6		1
e-Journals	1		
Conference proceedings			

5.5 Details on	5.5 Details on impact factor of publications:					
Range	0-3	Average	1	h-index	Avg: 5	

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	Received
Major projects	2016-17	UGC, New Delhi	12,30,000	11,80,000
Minor Projects		Gujcost	1,95,000	1,10,000
Interdisciplinary Projects				
Industry sponsored		PIDILITE, Mumbai	1,00,000	1,00,000
Projects sponsored by the University/ College				
Students research projects  (other than compulsory by  the University)				
Any other(Specify)				
Total			15,25,000	13,90,000

3.7 No. of books publi	shed i) With ISBN	No. 06	Chapters in Edited Books		
	ii) Without ISB	BN No.			
3.8 No. of University Departments receiving funds from					
	UGC-SAP	CAS	DST-FIST		
	DPE		DBT Scheme/funds		
3.9 For colleges	Autonomy	CPED	BT Star Scheme		
	INSPIRE	CE	Any Other (specify)		

3.10 Revenue generated through consultancy

Rs. 6,18,800/-

# 3.11 No. of conferences/workshopsorganized by the Institution

	r. Io	Name of the seminar & Date	Sponsoring Agency	Level
1	1	International Industrial Hygiene	AIHA, CIHA, ABIH, ISS,	International
		Conference -2016, Bengaluru	IHS	International
		One Day Technical Seminar on "Paint		
2	2	& Coating Technology for	ACT-G	National
		Tomorrow's India on 07/10/2016		
		National Seminar on Advancements	Transpek Industries,	
3	3	in Chemical Technology-An Indian	Vadodara and	National
		Perspective, October 1 <sup>st</sup> , 2016	AnlonPharma,Rajkot	
1				I

3.	12 No.	of faculty	served as	experts.	chairpersons	or resource	persons
~ .		or racare,	DOI TOG CLD	O'I P CI CO	olidii polisolis	OI IODOGICO	PULDOILD

3.13 No. of collaborations International 02 National 08 Any other
3.14 No. of linkages created during this year 03
3.15 Total budget for research for current year in lakhs: 15,25,000

From funding agency:1525000, From Management of University/College `.1,97,000 Total 17,22,000

# 3.16 No. of patents received this year

Type of Patent	Status	Number
National	Applied	Nil
Tvational	Granted	Nil
International	Applied	Nil
michianonar	Granted	Nil
Commercialised	Applied	Nil
	Granted	Nil

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
	01 (Hiren Soni) secured III					
01	position in Poster presentation					
	at China					

3.18 No. of faculty from who are Ph. D. Guides and students registered	07		
3.19 No. of Ph.D. awar	ded by faculty from the	Institution 5	
3.20 No. of Research so	cholars receiving the Fe	llowships (Newly enrolled	+ existing ones)
3.21 No. of students Pa	articipated in NSS events	s:	
International level	National level	University level 189	State level
3.22 No. of students pa	articipated in NCC event	s:	
International level	National level	University level	State level
3.23 No. of Awards wo	on in NSS:		
International level	National level	University level	State level
3.24 No. of Awards wo	on in NCC:		
International level	National level	University level	State level
3.25 No. of Extension	activities organized		
University forum	College forum	3	
NCCNSS	Any othe	er 07	

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

Sr. No.	Name of activity	Participant/ Beneficiary
1.	Blood Donation Camp	47 units
2.	Seminar on 'Digital Banking and Cashless Transactions'	115

# CRITERION – IV

# **4. Infrastructure and Learning Resources**

# 4.1 Details of increase in infrastructure facilities:

Department	Equipments	Source of fund	Total in Rs.
Industrial Chemistry	Heating Mantle (4 Nos)  Nutch Filter  Digital Balance	ISTAR ISTAR MISA	1,14,328/-
Organic Chemistry	Refrigerator	ISTAR	11,400/-
Polymer Science & Technology	Rockwell Hardness	ISTAR	2,70,054/-
Surface Coating Technology	UV Curing Equipment, Heating Mantle and Hotplate, Flash Cup	ISTAR	1,67,076/-
Environmental Science & Technology	Autoclave, Hot Air Oven, Digital Balance	UGC	1,10,825/-
GIS	Software		1,10,187/-

# 4.2 Computerization of administration and library

The administration and library activities are already computerized.

SOUL software and Barcoding system are used in library.

Library is fully furnished with reading room, internet, multimedia and reprographic facilities. Also have INFLIBNET & e-journal facility

The process of the institute administration is computerised. All data related to academic, non-academic activities, exam results have been computerized

# 4.3 Library services:

	Existing		Ne	ewly Added	Total		
	No.	Value	No.	Value	No.	Value	
Text Books	870				875		
Reference Books	720	1,99,405	30	8985	745	2,10,763	
e- books							
Journals	06	8240	02	2820	06	11060	
e –journals	2						
Digital Database							
CD & Video							
Other specify							
Reference Books included in text books			e-journals NLIST program			program	

# 4.4 Technology up gradation (overall)

	Total Computer s	Compute r Labs	Interne t	Browsin g Centres	Compute r Centres	Offic e	Departmen ts	Other s
Existin g	188	3	03	05	01	08	03	02
Added								
Total	188	3	03	5	01	08	03	02

- 4.5 Computer, Internet access, training to teachers and students and any other programme for technology upgradation (Networking, e-Governance etc.)
  - Internet access is available in all computers used for Academic and Administrative work in addition to those in computer and internet labs.
  - Wi-Fi facility to access internet is available to all registered staff members
  - and students
  - Network operations Centre: NOC of ISTAR manages the web server of 22 colleges and web space of 625 faculty members of various colleges of CVM Management.
  - ICT enabled teaching-learning process

4.6 Amount spent on maintenance in lakhs:

i) ICT 26,986

ii) Campus Infrastructure and facilities 37,248

iii) Equipments

iv) Others 86,987

Total: 1,63,206

# CRITERION - V

# **5. Student Support and Progression**

- 5.1 Contribution of IQAC in enhancing awareness about Student Support Services
  - Student members of the IQAC are encouraged to communicate their views and give suggestions for the enhancement of teaching-learning process.
  - It also monitor the internal and external results of all students in all subjects
  - IQAC provides information about various Student Support Services availableat the institution and from other sources during the orientation programme
  - Earn & Learn Scheme for students doing Ph.D.
  - Encouraging departments to arrange Industrial Visits, Campus Placement & Project Assignments
  - Guidance in publishing student Centric Galaxy Magazine every year
  - Encouraging for participation in web seminars
  - Encouraging faculty & students for Seminar / conference participation

# 5.2 Efforts made by the institution for tracking the progression

The institution monitors and ensures the achievements of the learning outcome through analysis of the tests, examination results, seminar/conference participation, industrial visits and the pass percentage .These are discussed in the IQAC meeting and the Board of management meetings.

In addition, the opinion and suggestion of students are sought through

- Student Counselling
- Suggestion Box
- Feedback from Students

Faculty members are in contact with the alumni for tracking their progression through Face book and other Social Network

The Teachers are encouraged to prepare a teaching plan. Individually a teacher submits a Teaching plan to the Head of the Department and the plan is finalised after a departmental meeting

5.3 (a) Total Number of students

UG	PG	Ph.D.	PG Diploma
	574	19	35

(b) No. of students outside the state

34

(c) No. of international students Nil

Men

No	%
241	80.33

Women

No	%
59	19.66

Last Year			This Year								
General	SC	ST	ОВС	Physically Challenged	Total	General	SC	ST	ОВС	Physically Challenged	Total
212	06	06	50	Nil	274	222	08	11	59	01	300

Demand ratio:1:1.2Dropout(%): 0

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

NET preparation is conducted (1 period per week) for both semesters' (II & IV) students to compete the national level exams in the subject of Environmental Science.

Students (MSc & PhD) are motivated and encouraged to participate in various competitive events e.g. Seminars / Workshops at State, National and International levels.

Coaching for campus interview is arranged for all final year students.

As and when needed teachers guide and help students to prepare for competitive exams.

The personality development & soft skill programme (GD & PI) are conducted with the help of Career development centre (CDC), Vidyanagar and Globearena (Hyderabad).Guidance is provided for various competitive examinations

No. of students beneficiaries			All students of the institute		
5.5 No. of students qualified in these examinations					
NET		SET/SLE	ETGATE	CAT	
IAS/IPS etc.	01	State PS	SCUPSC	Others	

#### 5.6 Details of student counselling and career guidance

- The institution has department-wise faculty advisors for student support and Mentoring.
- To improve the communication skill in English, the college conducts PDP classes
- Placement Cell arranges campus interviews for placement from various organizations.
- Personality development programme conducted for all students in association with Career Development Centre, Vidyanagar
- The students are encouraged to exhibit their skills and talents through various co-curricular activities
- Relevant academic activities are conducted time to time under RUSA head.
- Group of students is allotted to one counsellor. All faculties/ counsellor keep track of the academic and general performance of the student.
- RUSA Sponsored entrepreneurship development workshop is conducted in December, 2016 for 16 hours duration to EST, MIHS, MV students
- In case of need like shortage of attendance and poor performance, parents are informed through letter or phone.
- Project guidance and seminar preparations are provided to final semester students.
- Placement assistance, information is also provided by counsellor/ faculty.
- Open house is conducted every semester, which gives an opportunity for parents and teachers to interact and discuss about the performance/problems of students.
- The institution has department-wise faculty advisors for student support and Mentoring.
- Placement Cell arranges campus interviews for placement in various organizations.

No. of students benefitted

All the students of the institute

#### 5.7 Details of campus placement

	Off Campus		
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
56	210	154	83

# 5.8 Details of gender sensitization programmes

A one day programme on Women Empowerment-2016" on Tuesday, 16<sup>th</sup> Feb 2016 which included expert talk and training on martial arts.

A One day Seminar on "Orientation Program (WDC) – ISTAR 2016" was organized by Women Development Cell, Institute of Science & Technology for Advanced Studies & Research (ISTAR) 23rd September, 2016 at ISTAR.

#### 5.9 Students Activities

5.9.1	No. of students participated in Sports, Games and other events						
	State/ University level 6 N	ational level	International level				
No. of students participated in cultural events							
	State/ University level 1 N	ational level	International level				
5.9.2	No. of medals /awards won by stude	nts in Sports, Games and	d other events				
Sports: St	ate/ University level 12 Nation	onal level In	nternational level				
Cultura	l: State/ University level N	ational level	International level				
5.10 Schol	arships and Financial Support						
		Number of	Amount				
		Students	(Rs.)				
Fin	ancial support from institution	05	2, 37,500				
Fina	ncial support from government	09	9,01,660				
			30000				
Fin	ancial support from Industries	10	3,11,330				
			10000				
Financia	al support from Alumni Association	02	40000				
Number of	f students who received International/						
	National recognitions						
		1	1				

# SCHOLARSHIP FROM GOVERNMENT

Sr.No.	Type of scholarship	No. of students benefitted	Amount in Rs.
1	ST less income	9	9,01,660
2	ST high income		
3	SC less income		
4	SC. high income		
5	SEBC/OBC		

5.11	Student organised / initiatives	1
	zenerii organiisee / minimu / es	1 -

Fairs : State/ University level National level International level
Exhibition: State/ University level National level International level

5.12 No. of social initiatives undertaken by the students  $\boxed{01}$ 

5.13 Major grievances of students (if any) redressed: Nil

# CRITERION - VI

# 6. Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

#### Vision:

To add significantly to our enduring civilization tradition of pioneering excellence in learning, knowledge, enlightenment and self-realization, in a universally relevant context.

#### **Mission:**

We dedicate ourselves to the perpetuation our founders' vision of providing the infrastructure, facilities, operating conditions and overall environment conducive for the education of young scholars, along with the desired physical, mental and character building inputs; we firmly renew our commitment in providing value added globally relevant education with an emphasis on the techno management domain to ensure that our scholars fruit fully explore their knowledge skills and values in the global economy.

Our college follows the above mentioned vision and mission in letter and spirit. Ours is a secular institution whose focus is on imparting quality education in the field of pure & applied sciences and inters disciplinary courses and creating opportunity for young students to expand their knowledge and skills. Moreover, the faculty is always keen to upgrade themselves and always strive to improve the curriculum to make it relevant to the changing times. The college also gives ample opportunities for the overall development of the students by allowing the students to participate in various sports events, academic meets and cultural events. We do believe that overall development of students is essential besides academics and therefore institute has initiated a personality development program. It is said that future leaders of the nation are born in our educational institutions. To make this happen, students are inducted in central committee and given responsibility to manage and organize various events in the collage. This involvement nurtures future leaders and managers besides building the character.

6.2 Does the Institution has a management Information System	Yes
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6.3 Quality improvement strategies adopted by the institution for each of the following:

#### 6.3.1 Curriculum Development

As the institute is affiliated to Sardar Patel University and Gujarat Technological University, the rules of the universities are followed in curriculum development. Senior faculty members (09) are in the Board of studies of university and they constantly interact with teachers and students and the suggestions are conveyed to the Board of Studies. Opinions of experts from industry and academia are also taken into consideration during syllabus preparation.

#### 6.3.2 Teaching and Learning

- Bilingual teaching is done in the initial days for the freshers taking into consideration the fact that most of the students are from vernacular medium
- ICT facility in teaching for ensuring effective content delivery
- Institute library and departmental library facilities
- Internet access to students
- Industrial and Study Visits,
- Expert and Alumni Talks and guest faculty lectures conducted regularly in every semester
- Well stacked Library
- Faculty development programme
- Alumni invited regularly for sharing their experiences

#### 6.3.3 Examination and Evaluation

- Institute follows the examination patterns specified by the university and involves Assignment, Seminar, Objective Test, Project Work etc.
- Remedial and weekly examinations are conducted for students.
- Results of examinations at different stages are analyzed and steps are taken for further improvement

#### 6.3.4 Research and Development

- Institute has an active research committee and guidance is provided to faculty aspiring to pursue research.
- The college creates an academic environment that ignites and fosters students' interest in scientific temper and research culture.
- Research fellows are trained to make presentation before research committee and they are encouraged to participate in Seminar/Conferences etc.
- Post Graduate students and Staff are encouraged for paper presentation in Seminars/Conferences etc.
- Institute representative participates regularly in CVM core research meetings.

#### 6.3.5 Library, ICT and physical infrastructure / instrumentation

- The institute has a library committee which meets regularly, takes stock of the library facilities and take necessary actions for improving the facilities and purchasing of new books, periodicals etc.
- As per the demand from various departments, the infrastructure is improved with the help of financial support from the management.
- Wi-Fi campus with 300 networked computers
- LCD with Projectors to support class room teaching
- CCTV Surveillance Services

#### 6.3.6 Human Resource Management

- Biometric system and Management Information System are implemented
- Internal Promotion
- Faculty appraisal based on Academic Audit
- Involvement of faculty in Co-curricular and Extra-curricular activities
- Duty leaves for faculty for participating in Seminars/Conferences etc.

# 6.3.7 Faculty and Staff recruitment

- Recruitment as per norms of Sardar Patel & Gujarat Technological Universities
- Salary as per the norms of Sixth Pay Commission
- Ad-hoc Faculty recruited as per the requirement
- Experts from Industry invited for delivering special lectures

#### 6.3.8 Industry Interaction / Collaboration

- Institute has an industry-institute interaction cell which takes care of liaison with various Industries. This has helped in placement of Students, project-work and fetch Student Scholarship from Industry.
- Industrial Chemistry department has collaboration with Lupin Ltd. , Cadila Health Care Ltd. and SVNIT, Surat
- Environmental Science & Technology department has collaboration with Green Group companies, Baroda, Nandesari Industrial Association, Baroda and AIST, Tsukuba, Japan.
- MIHS department has collaboration with Cincinnati University, USA
- IT & MCA departments have collaboration with IIRS (ISRO) and Indian Society of Geomatics
- SCT department has collaboration with seven seas paints
- Most of the faculty members are members of various Professional Society/groups.

#### 6.3.9 Admission of Students

- Institute has an admission committee which plans the various activities required for publicity of various programmes.
- Institute also has a website which provides all information about the institute and facilities are provided for online registration and queries
- Advertisements are given in regional and national news papers
- Prospectus is circulated and displayed on web site

#### 6.4 Welfare schemes for

• Free Thalassemia test for staff and students
• Basic medical facility in University health care by paying Rs. 10
for staff & students
• Free remedial classes for weak students
• PDP coaching for students
• Scholarship from government, management & industries for
students
Hostel facilities for Boys & Girls
• Staff Quarters & Directors Bungalow

6.5 Total corpus fund generated

Endowment Fund :Rs. 43,96,500/-Alumni Fund: Rs. 4,44,500/-

6.6 Whether annual financial audit has been done

Yes √ No

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

Academic and administrative audit was done by Gujarat Government body KCG (Knowledge Consortium of Gujarat) in July 2014 and received "A" Grade.

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

For UG Programmes Yes No For PG Programmes Yes  $\sqrt{\phantom{a}}$  No

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

Choice based Credit System, Continuous evaluation, Assignment, Project

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

Not applicable as our institute is a self financed affiliated institute

6.11 Activities and support from the Alumni Association

Annual Meeting of Alumni association was organized on 9<sup>th</sup> March,2017.

Sr.No.	Department	Name of the Alumni	Type of contribution
1	EST	Dr.Mitul Patel, Executive Env. Officer, Lupin, Ankleshwar	Helped in placement and admission process
2	EST	Dr. Pratik Mehta, Head, EHS, ESSAR, Jamnagar	Expert Talk
3	EST	AshishDube, IPCA, GM, Baroda	Expert Talk
4	IC	DaxeshMankad, Arysta Life Science	Expert Talk
5	IC	Dharmesh Shah, Sun PharmaLtd.,Vadodara	Expert Talk
6	IC	JigarSolanki,JCI	Expert Talk
7	IC	MunafDamani, IPCA Labs, Ranu	Expert Talk
8	Instrumentation & Control	Mr.RonakVyas Mr. Jay Popat Mr.BhaveshKachhadiya	Expert Talk, Assistance in Placement and Admission Counselling

# 6.12 Activities and support from the Parent – Teacher Association

All departments had conducted open house after the internal examination which provided a platform for interaction between parents and teachers

# 6.13 Development programmes for support staff

The support staff are well trained for interview processing, university affiliation processing, salary pay pack software, online examination related work, Income Tax Service, online submission etc.

Open-house is arranged every year in all the departments to communicate with parents and students of their performancesthe attendance, result of quiz test and internal are analyzed and parents are inform the progress of student through counsellor.

This helps in improvement of students performance in the university examinations.

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

- Most of the notices to staff sent via e mail (use less paper)
- Proper measure of garbage dumping and recycling is taken.
- Plantation programmes are undertaken to make the college campus green
- EST department regularly monitoring air, water, soil and noise quality in and around ISTAR campus (Green Audit).
- Organize Ozone Day, Science Day, Wetland Day, Earth Day, Biodiversity Day and so on, by conducting competitions among the students. As a mark of World Environmental Day, all faculty members of institute planted one sapling each for clean and green campus.
- EST Department conducted UG Environmental Awareness workshops to students of our sister institutes every year on Biodiversity status, dwindling, preservation, conservation and Strategies; Climate change- causes, consequences, and impacts and Bioremediation and Biodegradation of xenobiotic compounds.
- IC-Buddy system of Industrial Chemistry department which enables the new entrants to become knowledgeable about department practices and culture in a shorter period which allows them to take the maximum benefits of the department in terms of knowledge acquirement and value addition for shaping their future. The interaction is also aimed at emphasizing punctuality, discipline, leadership and interpersonal skills.

#### 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.

RUSA sponsored Entrepreneurship training was conducted by college for EST, MIHS& Valuation students for skill development during December, 2016.

As per the planning done in the beginning of the academic year, expert talks, and seminars have been organized by the IC department.

Collaborative skill development programs are arranged for the benefit of students in the advanced field of Instrumentation & Control which are not included in the syllabus.

Webinars from National instruments, Bangaluru are arranged for updating hardware and software skills among students in Instrumentation department.

Counseling is done by teachers and forms have been filled as a record keeping tool for the students under the Counselors for monitoring and analysis in Instrumentation department. After Second Semester, 40 days Summer Training with stipend is organized by Geoinformatics department.

- Skill development program
  - o PHP& Code Igniter Framework
  - Data analytics using R
- 7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year
- As per the planning done in the beginning of the academic year, expert talks, seminars, workshops have been organized by all departments
- Short term courses started as per perspective plan
- Approval obtained for two M.Sc. programmes started from 2016-17
- Feedback was taken regularly from students, alumni and parents Remedial classes or special classes are conducted for weak students

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

# **Counselling:**

- To assist students in planning for educational and career choice
- To get information about difficulties faced by students so that their problems can be solved
- To build a reciprocal relation between students and teachers
- To encourage for developing special abilities and right attitudes

# **Creating Research Culture among Faculty and Students:**

- To identify the emerging areas of research
- To organize seminars/workshops/conferences to create awareness among faculty and students
- To identify the thrust areas of research
- To encourage consultancy in related areas
- CVM Management has constituted a core research team for research activity
- 7.4 Contribution to environmental awareness / protection

Conducting celebrations of various environmental days e.g. Tree plantation, World Ozone Day, Environment Day, Wetland Day, Earth Day, Biodiversity Day, etc. Creating environmental awareness among UG students by conducting one day workshops on thrust areas of environmental science.

7.5 Whether environmental audit was conducted	? Yes	No	<b>√</b>
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7.6 Any other relevant information the institution wishes to add.

CVM management fully supports in all matters related to Finance, Academics, and Administration.

#### **Strengths**

- High quality academic and technical inter disciplinary programmes
- Excellent reputation with various recruiting organizations
- Accomplishment of teaching learning and evaluation process
- Strong support and guidance from CVM management
- Adequate committed and qualified staff
- Effective implementation of curriculum
- Adequate Infra structure for ICT enabled teaching- learning
- Significant contribution in the curriculum development of S.P. University & Gujarat Technological University
- 5 labs with 300 net worked computers
- Sophisticated instrumentation facility available in SICART for training in Analytical Instruments
- R & D laboratories for research and Ph.D work
- State-of the-art facilities in departmental laboratories
- Initiated industry sponsored research work

#### Weakness

- High dependency on graduates from sister institutes
- Quality of students
- Not conducting any summer courses
- Not much sponsored research from Industry

#### 8. Plans of Institution for Next Year

- INST Department can enhance teaching learning and research by availing the existing facilities, Submission of research proposals, Conduction of Short term course, or certificate course, Establishment of more liaisons with eminent personality & Industry.
- Certificate course/ STTP in various subjects
- Onsite and in-house corporate training program for working professionals
- Re –Accreditation process for KCG Audit
- Faulty Development and strengthening of lab facilities for M.Sc. Mobile Technology and M.Sc. Geoinformatics Program.
- Skill development program on Data Visualization using R & Java Script

Name:Dr.Jigar V Patel	Name:Dr.Nirmalkumar J.I	
Signature of the Coordinator, IQAC	Signature of the Chairperson, IQAC	

# ANNEXURE – 1: ACADEMIC CALENDAR 2016-17

FIRST / THIRD SEMESTER				
20 <sup>TH</sup> JUNE	REOPENING AFTER			
	SUMMER VACATION			
8 <sup>TH</sup> JULY	COMMENCEMENT OF			
	CLASSES			
1 <sup>ST</sup> AUGUST- 15 <sup>TH</sup> SEPTEMBER	EXPERT TALKS/SEMINAR-			
AUGUST - SEPTEMBER 15 <sup>TH</sup>	INDUSTRIAL VISITS			
26 <sup>TH</sup> SEPTEMBER –30 <sup>TH</sup>	INTERNAL THEORY			
30 <sup>TH</sup> SEPTEMBER - 15 <sup>TH</sup> OCTOBER	INTERNAL PRACTICAL			
19 <sup>th</sup> OCTOBER- 22 <sup>ND</sup> OCTOBER	OPEN HOUSE			
31 <sup>ST</sup> OCTOBER -12 <sup>TH</sup> NOVEMBER	DIWALI VACATION			
SECOND/FOURTH SEMESTER				
5 <sup>TH</sup> DECEMBER 2016	COMMENCEMENT OF			
	CLASSES			
16 <sup>th</sup> JANUARY - 26 <sup>TH</sup> FEBRUARY 2017	EXPERT TALKS/SEMINAR-			
15 <sup>TH</sup> December 2016 ONWARDS	COMMENCEMENT OF			
20 <sup>TH</sup> FEBRUARY- 15 <sup>TH</sup> MARCH 2017	SECOND INTERNAL			
	THEORY AND PRACTICAL			
11 <sup>TH</sup> APRIL 2017 ONWARDS	EXTERNAL			
	EXAMINATIONS &			

# ANNEXURE – 2: FEEDBACK

#### FEEDBACK FROM STUDENTS

The feedback from students was taken based on the following aspects

- Subject Expertise of faculty
- Knowledge delivery proficiency
- Approach
- Contribution in skill development
- Project Guidance
- Campus Placement

The evaluation was done on a four point scale varying from A to D for excellent and unsatisfactory respectively.

In the academic year 2016-17, most of the teachers received A GRADE.

#### FEEDBACK FROM EMPLOYER

Feedback from employers is taken during the time of campus interview. The organisations which regularly recruit the students are satisfied with the performance of senior students working in their units and with the knowledge of those who appeared for interview in the current academic year. No complaints as such have been reported by the various organisations except the need for improvement of soft skills of students.

#### FEEDBACK FROM PARENTS

Feedback from parents was taken during open house conducted in October 2016. Parents expressed satisfaction over the involvement of ISTAR faculty in moulding the future of students which includes both teaching and encouragement in co-curricular and extracurricular activities.

#### FEEDBACK FROM ALUMNI

Feedback from Alumni was taken on the day of Annual alumni Day which was organised on 9<sup>th</sup>March,2016.Most of the Alumni expressed happiness over the facilities available and up gradation in syllabus. Some of them emphasized onactivities for improvement of softskills.