

PRAMUKH SWAMI SCIENCE & H.D.PATEL ARTS COLLEGE

(Affiliated to Hemchandracharya North Gujarat University, Patan)

NAAC re-accredited 'A' grade with CGPA 3.20
Awarded 'AAA' Rank-1 by Government of Gujarat
'College with Potential for Excellence' (2010-2019) by UGC

AN ANNUAL REPORT OF INTERNAL QUALITY ASSURANCE CELL (2015-16)



To

**UNIVERSITY GRANTS COMMISSION
BAHADUR SHAH ZAFAR MARG, NEW DELHI-110002**

**PRAMUKH SWAMI SCIENCE & H. D. PATEL ARTS COLLEGE
S. V. CAMPUS
KADI – 382 715
GUJARAT**

www.psshda.org

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Annual Quality Assurance Report (AQAR) of the IQAC

All NAAC accredited institutions will submit an annual self-reviewed progress report to NAAC, through its IQAC. The report is to detail the tangible results achieved in key areas, specifically identified by the institutional IQAC at the beginning of the academic year. The AQAR will detail the results of the perspective plan worked out by the IQAC. (Note: The AQAR period would be the Academic Year. For example, July 1, 2012 to June 30, 2013)

Part – A

I. Details of the Institution

1.1 Name of the Institution

Pramukh Swami Science and H.D.Patel Arts College

1.2 Address Line 1

Sarva Vidyalaya Campus,

Address Line 2

Behind Railway Station,

City/Town

Kadi

State

Gujarat

Pin Code

382715

Institution e-mail address

mail@psshda.org

Contact Nos.

02764-262634

Name of the Head of the Institution:

Dr Ajay S. Gor

Tel. No. with STD Code:

02764-262634

Mobile:

9426766703

Name of the IQAC Co-ordinator:

Dr Anand H. Vyas

Mobile:

9426767214

IQAC e-mail address:

mail@psshda.org

1.3 NAAC Track ID (For ex. HCMOGN 18879)

GJCOGN13005

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)

EC/66/RAR/043 dated 23-05-2014

1.5 Website address:

www.psshda.org

Web-link of the AQAR:

<http://www.psshda.org/iqac.php>

1.6 Accreditation Details :

i. By NAAC

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 st Cycle	B+	75.1	2007	2007-12
2	2 nd Cycle	A	3.20	2014	2014-19

ii. By Govt. of Gujarat (KCG – Knowledge Consortium of Gujarat)

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 st Cycle	Rank 1	84.3	2013	2013-16

1.7 Date of Establishment of IQAC :

DD/MM/YYYY

22/07/2007

1.8 AQAR for the year (for example 2010-11)

2015-16

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

- i. AQAR 2013-14 _____ submitted to NAAC on (12/05/2014)
ii. AQAR 2014-15 _____ submitted to NAAC on (23/12/2015)
iii. AQAR 2015-16 _____ submitted to NAAC on (19/09/2016)

1.10 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 ☐

(eg.UGC, AICTE, BCI, MCI, PCI, NCI)

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 ☐

1.11 Type of Faculty/Programme

Arts ☒ Science ☒ Commerce ☐ Law ☐ PEI (Phys Edu) ☐TEI (Edu) ☐ Engineering ☐ Health Science ☐ Management ☐

Others (Specify)

B.Voc. & Community College

1.12 Name of the Affiliating University (*for the Colleges*)Hemchandracharya North Gujarat University, Patan,
Gujarat

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

Autonomy by State/Central Govt. / University

No

College with Potential for Excellence

Phase II

UGC-CPE

☒

DST Star Scheme

UGC-CE

UGC-Special Assistance Programme

DST-FIST

UGC-Innovative PG programmes

Any other (*Specify*)AAA⁺ Rank 1
By Govt. of Gujarat

UGC-COP Programmes

☒**2. IQAC Composition and Activities**

2.1 No. of Teachers

8

2.2 No. of Administrative/Technical staff

1

2.3 No. of students

3

2.4 No. of Management representatives

3

2.5 No. of Alumni

2

2.6 No. of any other stakeholder and

2

community representatives

2.7 No. of Employers/ Industrialists

1

2.8 No. of other External Experts

1

2.9 Total No. of members

21

2.10 No. of IQAC meetings held

1 st Quarterly Meeting:	1/07/2015
2 nd Quarterly Meeting:	28/10/2015
3 rd Quarterly Meeting:	30/01/2016
4 th Quarterly Meeting:	23/04/2016

2.11 No. of meetings with various stakeholders:

No.	<input type="text" value="4"/>	Faculty	<input type="text" value="8"/>
Non-Teaching Staff	<input type="text" value="1"/>	Students	<input type="text" value="1"/>
Alumni	<input type="text" value="2"/>	Others	<input type="text" value="3+3"/>

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 Institution Level

(ii) Themes

1. Workshop on Gazal Writing
2. 3 Days Workshop on Elocution Skill
3. 2 Workshops of 4 & 6 days on BT- Capacity Building Cell
4. Seminar on “Drugs Development: A Mathematical Perspective”
5. ‘Digital Literacy Hands on Workshop’
6. Workshop on Hands on Practice HPLC, FTIR, GC etc.
7. State Level Competition on Science Quiz & PPT

2.14 Significant Activities and contributions made by IQAC

No.	Significant Activities and contributions made by IQAC
1	Developed the infrastructure for Community College in Course 3: Ceramic Technology
2	Carried out the appropriate Teaching & Non-teaching Staff recruitment procedure for the B.Voc. & C.C. programs as per Uni. rules
3	Accomplished the infrastructure, laboratory instruments and staff recruitment procedure for special Physics at Under graduation level
4	Invited by Knowledge Consortium of Gujarat as Nodal Agency for Vocationalization of Higher Education in Government Colleges of the State
5	Joint activities e.g. seminars with NAAC 'A' graded colleges of Gujarat for academic, research and collaborative work
6	On behalf of Sarva Vidyalaya Kelvani Mandal, we have applied for Nodal Agency for Model Centre to NSDC: National Skill Development Corporation, Ministry of Skill Development & Entrepreneurship
7	MOUs with Cera & Somany Ceramics Limited, an ISO companies for Ceramic Technology Course in C.C.
8	Organized State Level Workshop on Gazal in collaboration with Mohanlal Sahitya Vartul.
9	Organized University Sponsored 3 Days Workshop on Elocution Skill
10	Organized 2 State Level Workshops 7 th BT-CBC-2015 (6 days) (SY and TY)
11	Organized State Level Seminar on "Drugs Development: A Methamatical Perspective" jointly organized with Dept. of Mathematics, HNG & KSV, Gandhinagar
12	Chemistry Workshop on 'Digital Literacy Hands on Workshop' in collaboration with IBM
13	Chemistry Hands on Practice HPLC...
14	State Level Competition on Science Quiz & PPT
15	Annual Students' Feedback Data is shared with the Depts.
16	14 Industrial Trainings in 20 industries and 87 students benefited.
17	Training for Competitive Exams.
18	State Level Science Fair Participation: Total Students 250: 90 students presented 20 models
19	Organized 2 Workshops on Ceramic Tech. in collaboration with CERA Sanitaryware Pvt. Ltd.

The major focus of IQAC is to take into consideration how far the institute has succeeded in executing the previous year plan of action and in accordance to chalk up a new plan of action for further academic development of the institute from academic, administrative, research and infrastructure point of view.

These aspects are discussed in presence of the faculty, non-teaching staff, the college management body and the stake-holders to take solid step of growth for the next academic year.

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
To Develop the infrastructure for B.Voc. and C.C.	- Two extra classroom construction work is sanctioned
Recruitment of the Teaching & Non-teaching staff for B.Voc. & C.C.	- As per University norms, the recruitment of the Teaching & Non-teaching staff for B.Voc. & C.C. is executed.
To recruit Staff for Community College Course 3: Ceramic Technology	- Recruitment of the Teaching and Non-teaching staff is accomplished as per Uni. Norms.
Joint activities with NAAC 'A' graded colleges of Gujarat for academic, research and collaborative work	- With three NAAC 'A' graded colleges, Science, Arts & Commerce College, Pilvai, HNG Uni., V.P. Science College, Vallabh Vidyanagar, S.P. Uni., and M.G. Science College, Guj. Uni. MOUs have been signed for Academic, Research and Collaborative Work for the Faculty as well as Students' development
MOUs with Universities & Industries for academic, research and collaborative work	- MOUs with Agricultural University, Dantiwada & Krishi Vigyan Kendra, Mehsana - MOUs with Cera & Somany Ceramic ISO Co.
To Organize 2 State Level Workshops 7 th BT-CBC-2015 (6 days) (SY and TY)	- Organized 2 state level workshops, for all Gujarat Bio-technology students.
To organize Ceramic Workshop	- Organized 2 Ceramic Workshops in collaboration with Cera Pvt. Ltd.
To organize Seminar in Maths	- Dept. of Mathematics organized State Level Seminar on "Drugs Development: A Mathematical Perspective" jointly organized with Dept. of Mathematics, HNG & KSV, Gandhinagar
To organize Computer Literacy Workshop	Dept. of Chemistry organized 'Digital Literacy Hands on Workshop' in collaboration with IBM
To organize Hands on Practice Workshop	- Dept. of Chemistry organized State Level Hands on Practice Workshop on FTIR, HPLC & GC instrumentation Training.
To organize Digital Literacy Hands on Workshop	- Organized Digital Literacy Hands on Workshop' in collaboration with Narsimhbhai Institute of Computer Studies, Kadi; and The certificates were issued by Microsoft Co.
To organize Literary Workshops	- Organized State Level Workshop on Gazal Writing - Organized 3 Days University Level Workshop on Elocution Skill

** Attach the Academic Calendar of the year as Annexure.*

Annexure: I

2.15 Whether the AQAR was placed in statutory body

Yes

☒

No

☐

Management

☒

Syndicate

☐

Any other body

☒

Provide the details of the action taken:

No.	Action Taken by IQAC
1	<ul style="list-style-type: none"> - Established new Ceramic Laboratory - Purchased Ceramic laboratory instruments for Community College - Recruited adhoc staff/visiting staff till the Govt. of Gujarat sanctions the vacancies.
2	- Organized two UGC sponsored State Level Workshops in Mathematics in collaboration with Science, Arts & Commerce College, Pilvai in the academic year of 2015-16
3	- Organized 2 State Level Workshops 7 th BT-CBC-2015 (6 days) (SY and TY)
4	- Organized students' activities e.g. NCC/NSS/Sports
5	- Organized State Level Workshop on Gazal in collaboration with Mohanlal Sahitya Vartul.
6	- Organized University Sponsored 3 Days Workshop on Elocution Skill
7	- Invited by Knowledge Consortium of Gujarat as Nodal Agency for Vocationalization of Higher Education in Government Colleges of the State
8	- On behalf of Sarva Vidyalaya Kelvani Mandal, we have applied for Nodal Agency for Model Centre to NSDC: National Skill Development Corporation, Ministry of Skill Development & Entrepreneurship
9	- Organized Digital Literacy Hands on Workshop' in collaboration with Narsimhbhai Institute of Computer Studies, Kadi; and The certificates were issued by Microsoft Co.
10	- Organized 2 Workshops on Ceramic Technology in collaboration with CERA Sanitary ware Pvt. Ltd.
11	- Organized 14 Industrial Training in 20 Industries with 87 students' participation.
12	- Organized Students' Placement Programs in various Industries
13	- Organized Expert Lectures in various disciplines.
14	- Organized Students' participation at various Academic & Research Activities

Part – B

Criterion – I

I. 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	6	-	-	-
PG	4	-	-	-
UG	12	-	-	-
PG Diploma	-	-	-	-
Advanced Diploma	2	-	-	-
Diploma	-	1	-	-
Certificate	-	-	-	9
Others	-	-	-	-
Total	24	1	-	9
Interdisciplinary	-	-	-	-
Innovative	4	1	-	-

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

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	25
Trimester	-
Annual	-

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

Mode of feedback : Online ☐ Manual ☒ Co-operating schools (for PEI) ☐

**Please provide an analysis of the feedback in the Annexure*

Annexure: II

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

We have following faculty members as members of the University Board of Studies (BOS) in their respective subjects.

(1) Principal Dr. Ajay Gor (Chairman of the BOS)	B.Voc. Programs
(2) Mr. C.V. Patel	Chemistry
(3) Dr. S.V. Chaudhari	History
(4) Dr N. J. Parikh	History
(5) Dr. Anand Vyas	English
(6) Dr Minal Trivedi	Agriculture & Soil Sciences
	Pharmaceutical Chemistry
(7) Mr. C.A. Patel	Physics
(8) Mr S. B. Patel	Physics
(9) Dr Parimal Chatrabhuji	Chemistry

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

- C.C. in Ceramic Technology

Criterion – II

2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

Total	Asst. Professors	Associate Professors	Professors	On contract
40	06	19	-	15

2.2 No. of permanent faculty with Ph.D.

17

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
06	07	19	-	-	-	-	-	25	07

2.4 No. of Guest and Visiting faculty and Temporary faculty

6

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	10	12	2
Presented papers	13	35	2
Resource Persons	2	2	4

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

1. “Daily Homework, Daily Assessment” activity for Final Year Science students
2. Mentorship Program for all semesters and disciplines
3. “Working with Industry” project for vocation studies students in 44 industries
4. Project based learning for Physics, Maths, Chemistry & BT students.
5. Introduction of new P.G., Ph.D. and Career Oriented Programs
6. Village Gazetteers
7. Literary Projects by final year BA English.
8. SCOPE
9. FDP: Communication Skill Development Weekly Program

2.7 Total No. of actual teaching days

during this academic year

198

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

MCQs

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

08

2.10 Average percentage of attendance of students

85%

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.Sc.	174	84	34	2	-	-
B.A.	186	24	43	11	-	
M.Sc.-III	19	-	-	-	-	12
M.A.-III	82	-	-	-	-	72

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

The college has established an “Internal Quality Assurance Cell” (IQAC) as per the guidelines of NAAC – UGC. The cell consists of members from the Trust, college Alumni, principal of the college, Co-ordinator of the steering committee (NAAC and IQAC), heads of the departments and other reputed people of the town. The cell aims at quality enhancement based on the suggestions of the previous NAAC peer team report . As a part of this, IQAC organizes regular quarterly meetings in the month of July, October, January & April; during these meetings, along with the overall development of present and future plans, three departmental presentations _ one Science, one Arts & one Vocation dept. _ have their academic, research, curricular, co-curricular & extra-curricular activities are shared with others.

Every year the cell outlines the goals and sets targets regarding the overall quality of the institution, which includes needful things to be done and feedback from all stakeholders. The meeting of IQAC is regularly being held at the college wherein all the concerned issues regarding quality improvement are being discussed and solutions are arrived at. The annual report on the institute’s efforts of quality improvement and the achievement of superior outcomes on all aspect of holistic education is being sent to NAAC – UGC as ‘Annual Quality Assessment Report (AQAR)’ by the IQAC.

As a result of our continual efforts to enhance quality and provide education of higher standard, the college has been recognized by UGC as “College with Potential for Excellence (CPE Phase II)”.

1. The Head of the Departments of each of the enrichment programmes has been entrusted the responsibility of running the programmes efficiently and evaluating them frequently to make them beneficial and result-oriented.

2. Internal Quality Assurance Cell (IQAC) aims at quality enhancement in teaching and learning process based on the feedback from faculty members, students and alumni. The meetings of IQAC are held regularly at the college wherein all the concerned issues regarding quality improvement are being discussed and solutions are arrived at. The annual report on the institute’s efforts of quality improvement and the achievement of superior outcome on all aspects of holistic education are being sent to NAAC – UGC as ‘Annual Quality Assurance Report (AQAR)’ by the IQAC. Based on the suggestions made at the IQAC meetings the following steps are taken:

Feedback of all the students is taken and due analysis is done regarding the methods of teaching and necessary suggestions are communicated to concerned teachers. The evaluation of the teaching-learning process is done on a ten-points scale considering parameters such as presentation skill, content development, evaluation pattern, availability of teacher and general behavior of the teacher etc.

Motivating Steps by IQAC:

1. The college has prepared virtual classrooms and it organizes lectures of experts and encourages college teachers to use various teaching aids such as multimedia projector, interactive board, visualizer (especially for experiments) etc.
2. The college has collaborated with a Government of Gujarat Initiative - ‘**SANDHAN**’ where **satellite based expert lectures are telecast**. These lectures are shown to students.
3. The institute has organized several training programmes to update the teacher.

2.13 Initiatives undertaken towards faculty development *

<i>Faculty / Staff Development Programmes</i>	<i>Number of faculty benefitted</i>
Refresher courses	-
UGC – Faculty Improvement Programme	41
HRD programmes	2
Orientation programmes	6
Faculty exchange programme	4
Staff training conducted by the university	-
Staff training conducted by other institutions	2
Summer / Winter schools, Workshops, etc.	-
Others	-

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	01	03	-	07
Technical Staff	07	01	01	01

Criterion – III

3. Research, Consultancy and Extension

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

1. MCTT Project: Minimum Capacity Threshold Target:
2 Projects submitted for approval in KSV University, Gandhinagar
2. MICRO SOIL ANALYSIS LAB
3. State-of-the art research laboratory
4. Well equipped plant Tissue Culture Lab and a Green House
5. Research supervisors/guides in various subjects
6. Computerized library and INFLIBNET facility
7. Computer lab enabled with internet facility
8. The college and the hostels are Wi-Fi enabled.
9. We have purchased a software, Quantemol-N from UK for advance research in electron –atom/molecules scattering theory.
 - The college has signed MOUs with nearby industries e.g. Corel, Torrent, etc. Corel has donated a GC to our research laboratory.
 - The college has spent about Rs.45,00,000/- towards creating research facilities.
 - The college has signed MOUs with nearby industries e.g. Corel, Torrent, etc. Corel has donated a GC to our research laboratory.
 - KSV university has provided additional financial support to several projects (e.g. last year Rs.4,00,000/- has been allocated to 7 faculty members.
 - Open source software training is being regularly provided to students in collaboration with IIT-Mumbai. These software include LATEX, LINUX, PHP- MYSQL, SCILAB, PYTHON, GEOGEBRA

3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	1	1	-	-
Outlay in Rs. Lakhs	6,00,000/-	3,40,000/-	-	-

3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	3	5	-	7
Outlay in Rs. Lakhs	3,69,000/-	5,90,000/-	-	-

3.4 Details on research publications

	International	National	Others
Peer Review Journals	19	1	
Non-Peer Review Journals	34		
e-Journals	2		
Conference proceedings	1		

3.5 Details on Impact factor of publications:

Range Average h-index Nos. in SCOPUS

Annexure: III

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	1	UGC	3,40,000/-	2,15,000/-
Minor Projects	3	Kadi Sarva Vishwa Vidyalaya UGC	2,16,000/- 1,50,000/-	1,04,700/- 1,15,000/-
Interdisciplinary Projects	-	-	-	-
Industry sponsored	-	-	-	-
Projects sponsored by the University/ College	-	-	-	-
Students research projects (other than compulsory by the University)	2	Kadi Sarva Vishwa Vidyalaya UGC	60,000/- 1,64,000/-	60,000/- 1,64,000/-
Any other(Specify)	-	-	-	-
Total			10,32,000/-	6,58,000/-

3.7 No. of books published i) With ISBN No.

16

Chapters in Edited Books

1

ii) Without ISBN No.

2

3.8 No. of University Departments receiving funds from : - NA -

UGC-SAP

CAS

DST-FIST

DPE

DBT Scheme/funds

3.9 For colleges

Autonomy

CPE ☒

DBT Star Scheme

INSPIRE

CE

Any Other (specify)

3.10 Revenue generated through consultancy :

11,56,525/-

3.11 No. of conferences

organized by the Institution

Level	International	National	State	University	College
Number	-	-	6	1	2
Sponsoring agencies	-		UGC	Uni.	Trust

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

8

3.13 No. of collaborations International National Any other

3.14 No. of linkages created during this year Industrial linkages : 30

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

Type of Patent		Number
National	Applied	-
	Granted	-
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
12	20	04				

3.18 No. of faculty from the Institution who are Ph. D. Guides
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

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	16	State level	6
National level	17	International level	75

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	5	State level	5
National level	7	International level	

3.25 No. of Extension activities organized

University forum	2	College forum	7		
NCC	8	NSS	15	Any other	1

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

- WDC: Women Development Cell Activities:
 - Best out of Waste
 - Self Defence Workshop
 - Only Girl Child Reward
 - Cooking Classes
 - Art & Craft Workshop
- WEC activities :
 - Women Entrepreneurship Orientation Workshop
- Sarva Netrutva Training Workshop
- Voter Awareness Club by NSS
- Security Training Activity on Sundays by NCC cadets as members of Campus Security Committee
- 253 bottles of Blood Donation by N.S.S. & N.C.C. cadets (3 cadets donated blood in medical emergency)
- Tree Plantation by N.S.S.
- Raksha Bandhan & Janmastami Celebration by N.S.S.
- NSS Day Celebration
- WDC activities

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	48 Acres	-	Trust: College	48 Acres
Class rooms	24	2	Trust	26
Laboratories	8	1	Trust: College	13,48,530/-
Seminar Halls	2			
No. of important equipments purchased (\geq 1-0 lakh) during the current year.		1 GC 1 FTIR UPLC	college	7,70,000/- 9,00,000/-
Value of the equipment purchased during the year (Rs. in Lakhs)				
Others Virtual Classes,				

4.2 Computerization of administration and library

Library:

- Automation of the Library (through SOUL Web OPAC)
- N-List of INFLIBNET to access to E-journals(3719+ with back files from 5-10 years) and E- Books (74138 books)
- Access of Internet Facility through six computer terminals.(Internet bandwidth / Speed 2 mbps)
- Wi-Fi facility

Administration Office:

- Computerized with Internet Facility through six computer terminals & 4 printer & 2scanners.

4.3 Library services:

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	24,345	38,30,958.	85	2,78,420	26,064	41,09,378.50
Reference Books		50	1634			
e-Books	97000	0	28,000	0	1,25,000	0
Journals	83	46,019.00	31(Renew)	42,353	80	0
e-Journals	6,000	0	0	0	6000	0
Digital Database	0	0	0	0		0
CD & Video	609	0	0	0	609	0
Others (specify)	-	0	0	0	-	0

4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Others
Existing	132	2	10 mbps	8	2	6	15	
Added	1					1	4	
Total	133	1	10mbps	8	2	7	19	

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

- 133 computers
- 12 laptops
- 10 mbps BSNL broadband speed
- wi-fi facility in the whole campus
- computer laboratory with 60 computers
- DELL (Digital Education Learning Laboratory) with 25 computers & Globeranna English Language Software
- SCOPE (Society for Creation of Opportunity through Proficiency in English) an online Exam for Teaching Staff
- Computer Training Program for Office Staff
- Computerized Library
- Computerized Individual Departments
- Reliance 4G Service:

4.6 Amount spent on maintenance in lakhs :

i) ICT	1,04,583:00
ii) Campus Infrastructure and facilities	2,61,599:00
iii) Equipments	85,224:00
iv) Others	8,85,685:00
Total :	13,37,091:00

Criterion – V

5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

- **IQAC takes care of the Up gradation of Brochure details to intimate the students as well as parents about the availability of Student Support Services in the form of Mean & Merit Scholarships provided by the Government as well as the Trust.**
- **IQAC takes care of the maximum utilization of the advance facilities provided by the college in the form of infrastructure as well as academic programs for the welfare of the students.**
- **Students from SC/ST, OBC and economically weaker sections**
- **Physically challenged students**
- **For the participants of different national/international competition**
The college students participate in national/international activities at three categories:
 1. Academic conferences/workshops
 2. Sports
 3. Cultural activities
- **Medical help/Medical center /Medical Insurance for the students.**
- **Development of skills**
The college runs career Oriented Programmes to develop various technical skills.
 1. Career oriented Programme on GMP-GLP practices in Biopharmaceuticals
 2. Certificate course in Hands-on Practices in Tissue Culture
 3. Certificate course in Applied Plant Tissue Culture Techniques
 4. Career oriented Programme on communication skills
 5. Career Oriented Training for competitive exams
- **Support for ‘Slow learners’**
The college organizes remedial classes for slow learners. The faculties gave special attention to such students.
- **Exposures of students to other institution of higher learning/corporate/business house etc.**
The college sends final year students for Industrial training and industrial visits to various industries.
We organize educational tours to academic and research institutes such as Physical Research Laboratory, Indian Plasma research, ISRO, IISER Pune, Mapro FOOD Industry Panchgini, Science City, Ahmedabad etc. along with several heritage places in order to give them exposure to higher learning.
- **Publication of student magazines**
The college runs ‘SahityaVartul’ to encourage students to write prose/poetries and articles which are displayed on a specified notice board.
A magazine “प्रज्ञा”(Prajna) is being published periodically. Students are awarded for best contribution.

5.2 Efforts made by the institution for tracking the progression

- Continuous evaluation of the students
- Participation of the students in curricular, co-curricular activities & extra-curricular activities
- Seminars
- Project based learning
- Industrial Visits
- Industrial Training
- Field Trips
- Academic Tours
- Organization of workshops

5.3 (a) Total Number of students

UG	PG	Ph. D.	Others (M.Phil.)
1162	189	10	6

(b) No. of students outside the state

06

(c) No. of international students

X

Men

No	%
610	44.62

Women

No	%
757	55.37

Last Year						This Year					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
1013	147	69	583	-	1812	731	122	42	465	07	1367

Demand ratio ---- Dropout 5 %

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

- **Cell for Preparation of civil services examination**

Institute has organized coaching classes for preparation of civil services examinations like GPSC, UPSC, Railway Recruitment Boards, Banking Services and other state level examinations. They were given training for better interview preparation. We have found satisfactory improvement in their performance and confidence.

An IAS training centre is run by our Trust at its Gandhinagar campus.

Gandhinagar, being the state capital, a pool of IAS officers is available for training.

Their lectures are live streamlined to our college at Kadi with a two-way communication.

No. of students beneficiaries

25

5.5 No. of students qualified in these examinations

NET

SET/SLET

GATE

CAT

IAS/IPS etc

State PSC

UPSC

Others

- 20 State Level jobs
- 2 NCC cadets in Indian
Navy & Indian

5.6 Details of student counselling and career guidance

Students are being counseled on various grounds by faculty members and we try to sort out various problems of students.

Following cells are actively engaged in the Counseling work:

Career Counselling Cell: It guides the students regarding career options and other academic matters

Grievance redressal cell: Any issue academic, social or psychological is being dealt with by senior faculty members

Women's Cell: It helps girl students to address their issues and problems concerning their academics as well as social matters.

No. of students benefitted

05

5.7 Details of campus placement:

Yes the college has an active Career Counselling Cell and the college is a part of the state level placement programme (Universal Development of Integrated employability Skills through Higher education Agencies) **UDISHA** – A Gujarat government initiative to increase employability of students of the state.

Also, the college generally organizes 'campus interviews' for the students of B.Sc. as well as M.Sc.

Field Expert from Cera Ceramics Pvt. Ltd. had a Placement Orientation Program in College Virtual Hall for B.A. & B.Sc. students to introduce them to various production sections, marketing department and availability of job for boys and girls as well.

Meghmani Industries Ltd. (Manufacturers of Dyes, Agro chemicals and intermediates) visited the Department of Chemistry, Patan, to guide and offer job in their companies. Our students attended the programme and were benefitted. Students of B.Sc. (Biotechnology) were exposed to industries through training of two weeks in industries such as,

- (a) Cadial Health care
- (b) ZydusMayne oncology Pvt. Ltd.
- (c) IntasPharma
- (d) IFFCO
- (e) AMUL dairy
- (f) Totun Pharma
- (g) Casil Pharma
- (h) Gujarat Cancer research Centre
- (i) Claris Life Science
- (j) Somany Sanitary ware Pvt. Ltd.
- (k) Vivekanand Oil Industries Ltd.
- (l) Alembic Pharmaceuticals Ltd.
- (m) Nirlife Healthcare Ltd.

Students from science faculty of our college have been selected from different industries.

Campus Placement Data		
No	Name of the Industry	No.of students Placed
1	Alembic Pharmaceuticals Ltd.	1
2	Torrent Pharmaceuticals Ltd.	6
3	Mascot Pharmaceuticals Ltd.	2
4	Claris Pharmaceuticals Ltd.	3
5	Lincoln Pharmaceuticals Ltd.	2
6	Nirlife Healthcare Ltd.	3
7	Vivekanand Industries, Kadi	6
8	Corel Pharmachem Pvt. Ltd., Kadi	5
9	Chlorophyll Biotech, Gandhinagar	3
10	CERA Ceramics Pvt. Ltd.	6
11	SOMANY Sanitary ware Pvt. Ltd.	6

5.8 Details of gender sensitization programmes

Yes, the institution has a student grievance redressed cell. In order to meet the grievances, “Suggestion Box” has been kept near the administrative office. The college has a “Grievance Redressed Cell” to redress the grievances of the stakeholders and students. The committee sorts out their problems promptly and amicably. The committee also redresses the grievances of the stakeholder as and when required. Serious issues are discussed in the staff meeting and the rest are sorted out in an informal manner.

GRIEVANCES REDRESSED:

- Services of Canteen facility have been improved.
- The college and hostels are now enabled with CCTV for continual surveillance.
- Transport facility is improved and the Trust has purchased two new buses.
- WDC – Self Defense Workshop, Cooking, Best out of Waste, Art & Craft Workshop etc

The college has set up “Women Development Cell” which looks after the issues pertaining to sexual harassment apart from taking various measures regarding all round development of women in the college. In last five years, it is worth noting that no serious issue of women harassment has been recorded. The whole of the campus including hostels is under 24× 7 surveillance through cameras. This helps prevent any untoward incidence to take place.

The women development cell undertakes the following steps to effect development of women:

- (1) Educating women about their basic rights.
- (2) Counseling girl students regarding several curricular and extra-curricular activities to motivate them for participation. When necessary, the cell counsels the parents to allow their daughter to take part in various activities.
- (3) Counseling the in laws of married (or soon to be married) girls to allow her to continue her study and nurture her career.
- (4) Counseling the girls and their parents regarding several social issues e.g. dowry, harassment by in laws and other matters.
- (5) Guiding the women about career development and career options available to them.
- (6) Looking after any grievances that woman may have and bring up to the cell.

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

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

Sports : State/ University level National level International level

Cultural: State/ University level National level International level

5.10 Scholarships and Financial Support

	Number of students	Amount
Financial support from institution	43	99,500.00
Financial support from government	207	7,15,760.00
Financial support from other sources	1	60,000.00
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 National level International level

5.12 No. of social initiatives undertaken by the students

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

The vision of this institution is,

“To keep pace with global advances in education, by providing value based knowledge and nurturing professional skills in the areas of science and arts, with special emphasis on societal elevation through rural development.”

Mission

To accomplish the vision, our **Mission** is,

1. To achieve the status of “Centre for Excellence” after being recognized as ‘College with Potential for Excellence’
2. To make students more employable through Career Oriented Programmes and inspire them to create jobs by inculcating entrepreneurial skills
3. To cultivate scientific attitude, research aptitude and soft skills among the students
4. To instill enthusiasm for preservation of languages, art and cultural heritage
5. To create state of the art infrastructure to facilitate teaching, research and sports
6. To promote the teachers for consultancy and patent generation
7. To contribute to societal elevation by empowering women and through value based education.

6.2 Does the Institution has a management Information System

The college has instituted an “Internal Quality Assurance Cell” (IQAC) as per the guidelines of NAAC – UGC. The cell consists of members from the Trust, college Alumni, principal of the college, Co-ordinator of the steering committee (NAAC and IQAC), heads of the departments and other reputed people of the town. The cell aims at quality enhancement based on the suggestions of the previous NAAC peer team report. Every year the cell outlines the goals and sets targets regarding the overall quality of the institution, which includes needful things to be done and feedback from all stakeholders. The meeting of IQAC is regularly being held at the college wherein all the concerned issues regarding quality improvement are being discussed and solutions are arrived at. The annual report on the institute’s efforts of quality improvement and the achievement of superior outcomes on all aspect of holistic education is being sent to NAAC – UGC as ‘Annual Quality Assessment Report (AQAR)’ by the IQAC.

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

6.3.1 Curriculum Development

The following faculties of the college contribute to the curricula design and development process as University members of Board of Studies of respective subjects:

Sr No.	Faculty	Subject
1	Dr Ajay Gor (The Principal)	B.Voc. (Chairman)
2	Mr. S. B. Patel	Physics
3	Mr. C. V. Patel	Chemistry
4	Mr. S. V. Chaudhari	History
5	Dr N.J. Parikh	History
6	Dr A. H. Vyas	English
7	Dr Minal Trivedi	Agriculture & Soil Sciences Pharmaceutical Chemistry
8	Mr C. A. Patel	Physics
9	Dr Parimal Chatrabhuji	Chemistry

- Prior to the BOS meetings of the university, the BOS Members of the college hold discussion with other faculty members regarding the curriculum and take their feedback to the university.
- We prepare questionnaire with respect to curriculum and take written feedback from the students which is, in turn, forwarded to the concerned authorities including faculties and the University.

6.3.2 Teaching and Learning

The college gives great emphasis on innovation and creativity in teaching methodologies. In order to facilitate such innovative practices the college has adopted the use of technology in to teaching methods.

- A) **Academic Tours and Industry visits:** The College organizes regular academic tours, field work and industry visits to expose and motivate the students to demands of industry and society.
- B) **Industrial Training :** For students of Science & Vocation Studies, the college has MOUs with 44 industries for first hand exposure to industrial experience through industrial training.
- C) **Industrial Experts' Lectures:** Along with the Industrial Visits & Industrial Trainings, the college invites the Industrial Authorities for Expert Lectures on various topics related to the curriculum.
- D) **Daily Homework, Daily Assessment Project:** Especially, final year students of BSc are invited to participate in this project to enhance their subjective knowledge and team-work spirit. For every 15 students, one team-leader is selected and as an appreciation of his efforts, monthly the college pays him remuneration as well. Thus, this project support the saying "Earning with Learning"
- E) **Mentorship Project:** To inspire students' involvement in the development of the college, semester wise Mentors are appointed to look after the academic progress of the students apart from their co-curricular and extra-curricular development during the studies.
- F) **Project based learning:** Particularly, to the final year students of B.Sc., The faculty members assign projects. Students are directly involved in activities such as soil analysis, and seedlings and hardening of plants, tissue cultured in our Plant Tissue Culture Lab. We make them earn while learning by involving in such projects.
- G) **Specialized trainings:** The college students are given opportunity to learn the Open Source Software in collaboration with IIT-Mumbai, and exposure to sophisticated equipments like HPLC, FTIR, GC etc. in our research lab. Such advanced trainings prepare the students for employable markets.
- H) **Assignments and Seminar:** Students are regularly given assignments, quizzes and they are required to present seminars in their classes. Due weight age to these activities is given in the internal evaluation.
- I) **Interactive board/ Multimedia projectors:** The teachers are encouraged to use interactive boards and multimedia projectors for better presentation. The interactive boards allow the teachers to 'save' the study material, which can be e-mailed to students for future use and studies.
- J) **Visualiser:** The College has purchased a Visualiser, which records all the experimental work done by students that can be reviewed by students /teachers later and can be shown to another group of students.

The following structure is adopted for achieving the above mentioned learning outcomes:

- Remedial classes for weak learners
- Motivation for rank holders
- ICT enabled training and provision for ICT tools
- Continuous Internal assessment programmes e.g. Weekly Test for T.Y.B.Sc.
- Quality improvement program
- Faculty development program
- Theory, projects, assignments & practical for effective learning.

6.3.3 Examination and Evaluation

EVALUATION BLUE PRINT:

We have developed a strong efficient and effective evaluation blue print based on sincerity, secrecy and sanity at every stage such as planning, scheduling, conduction of examination, assessment and moderation of answer books and declaration of results.

Administrative setup-

- College Examination committee- This committee consists of college senior faculties nominated by the principal. The committee is in charge for all matters pertaining to examination which includes preparation of examination, schedule, monitoring of the process, paper setting and assessment of answer books and declaration of results.

Examination pattern

- We follow the examination pattern of the affiliating university in which the university exam and internal assessment carry 70 marks and 30 marks respectively. Internal assessment (30 marks) consists of mid-semester examination (20 marks) and 10 marks for seminar, assignment, attendance, Quiz and fieldwork.
- **Weekly Tests:** We have adopted continuous evaluation pattern as a part of internal assessment in case of T. Y. B. Sc. Students. For 50 % of internal evaluation, we conduct weekly tests every Monday. Total 15 such tests are conducted out of which best 13 are considered. For remaining 50 % of internal evaluation a preliminary examination is conducted.
- **Additional examination** – For any student who fails to appear in some or all papers at the internal examination due to genuine reasons like medical leave, representing college/university in sports, cultural, N.C.C., N.S.S., or the activities conducted by recognized bodies or because of any valid reason, we offer retest.

6.3.4 Research and Development

- State-of-the-art research laboratory
- Well equipped plant Tissue Culture Lab and a Green House
- Research supervisors/guides in various subjects
- Computerized library and INFLIBNET facility
- Computer lab enabled with internet facility
- The college and the hostels are Wi-Fi enabled.
- Research funds
- The UGC has recognized our college as “College with Potential for Excellence” and provided a special grant of Rs1,40,00,000/- a big part of which is being spent for establishing research facilities in the college.
- The college has spent about Rs.45,00,000/- towards creating research facilities.
- The college has signed MOUs with nearby industries e.g. Corel, Torrent, etc. Corel has donated a GC to our research laboratory.
- KSV university has provided additional financial support to several projects (e.g. last year Rs.4,00,000/- has been allocated to 7 faculty.

6.3.5 Library, ICT and physical infrastructure / instrumentation:

- **Library:** The College has a resourceful library and students have free access to it from morning 8:00 to evening 10:00 .
- **Library Reading Hall :** Air conditioned 100 cubicles capacity Reading Hall remains open 24X7 .
- **Computation facility:** A computer lab with over 50 computers enabled with broadband internet and Wi-Fi facility is fully available to students and faculty.
- **Inflibnet:** The College has subscribed INFLIBNET whereby lot of e- journals and e-books are available for research students of the college. Internet facility for students and the library is connected through intranet and is available to each teacher on his/her desktop.
- 24,345 Text & Reference Books
- 83 journals & magazines
- 1,25,000 e-books
- 6000 e- journals
- 609 CD/DVD educational material
- 6 computers with internet facility are available for soft data search.

6.3.6 Human Resource Management

Human resource management							
Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers 36							
D.Sc./D.Litt.	--	--	---	--	--	--	
Ph.D.	--	--	11	1	7	3	22
M.Phil.	--	--	2	--	--	1	03
PG	--	--	6	--	3	3	11
Temporary teachers 03							
Ph.D.	--	--	--	--	4	1	5
M.Phil.	--	--	--	--	--	1	1
PG	--	--	--	--	3	1	4
Part-time teachers 03							
Ph.D.	--	--	--	--	1	--	1
M.Phil.	--	--	--	--	--	--	--
PG	--	--	--	--	2	--	2
*Out of 12, 10 are pursuing research, of which 5 are on the verge of completing Ph.D.							
<ul style="list-style-type: none">• The college management recruits qualified faculty members as per university guidelines and supports them fully to retain them.• Provides congenial environment, security and full facility for research• Provides financial support to carry research projects (e.g. in year 2012-13 eight faculty members have got projects worth Rs. 4,00,000/- by college management)• Provides financial support to attend international conferences abroad (e.g. Prin. Dr. Ajay Gor received Rs. 50,000/- to present their research work at conferences in USA)							

6.3.7 Faculty and Staff recruitment

- As per the Government & UGC norms faculty and staff recruitment takes place .
- When the State Govt. delays the NOC process for old/new vacancies as per the work- load, the College Trust, as per Govt. academic qualification recruitment process norms, appoints the Faculty as well as Staff not to let the college work hamper for the benefit of the students.

6.3.8 Industry Interaction / Collaboration

Industry interaction

- MOUs with industries
- The institute is associated with various industries for
- Organization of campus interview
- Involvement of experts from Industries in teaching and curriculum design students training and placement like,

Sr No.	Name of the Industry	Sr No.	Name of the Industry
1	Divine Life Care	17	Esquedrughouse
2	West Coast Pharma	18	Nirma Healthcare Gujarat Lab.
3	IFFCO, Kalol	19	Zydus Hospriya
4	Intas Biopharma	20	GSBTM
5	Lincoin Pharma, Ahmedabad	21	Mother Dairy
6	Zydus Cadila, Ahmedabad	22	Torrent Pharma
7	Sanket Metropolis Health Se.	23	Troika Pharma
8	Claris Life sciences Ltd. Ahmedabad	24	Osho Pharma
9	Stanmark Pharma	25	Jay Formulation Ltd.
10	Sabar Dairy	26	Aniket Pharma
11	Coral Pharma	27	Lizard Pharma
12	Prantij Pharma	28	Ganesh Sales
13	Euphoric Pharma	29	Aura Neturaceuticals Ltd
14	Cadila, Dholka	30	Concord Biotech
15	Best roses Biotech	31	Mediwin Pharma
16	Amneal Pharma		

We have inducted several executives from Industries into our curriculum design committees as listed below.

Sr No.	Executives from Industries & academia for curriculum design committees
1	Mr. Nilesh Trivedi, AGM, Torrent Pharma Ltd.
2	Dr. Hemant Desai, GM, Nirlife Healthcare Ltd.
3	Dr. Mahendra Sadadiya, MD, San Envirotech Pvt. Ltd., Ahmedabad
4	Mr. Deep Modi, Director, Environponics Solutions Pvt. Ltd., Ahmedabad
5	Dr. Anand Bhadalkar, Sector Specialist, Industry Sector, GSBTM, Govt. of Gujarat, Gandhinagar
6	Mr. Sanjay Patel, Director, SP Renewable Energy Source Pvt. Ltd., Anand and SP Energy Resources Pvt. Ltd., USA

The list of MOUs with Industries is separately attached particularly for B.Voc. & C.C. programs.

Annexure V

6.3.9 Admission of Students

The college ensures wide publicity and transparency in the admission process as mentioned below.

- Admission advertisement is published in leading regional and local daily newspapers. The announcement contains detailed information about number and range of courses, eligibility, process of admission and academic as well as support facilities.
- Prospectus giving all the academic, administrative and financial aspects related to admission process is made available to students.
- The detailed information regarding admission is displayed on the college website: www.psshda.org.
- The faculty members of the college personally visit various schools of the neighboring areas to counsel students regarding the career opportunities of the programmes offered by the college.
- The institution actively participates in various education fairs at national and international level e.g. the institute had a stall in 4th Vibrant Gujarat Global Summit at Gandhinagar, the Capital of Gujarat.

Transparency:

- Ours is a Grant-in-aid college with many self financed courses at its ledger and admissions are made as per state government and affiliating university's norms and guidelines.
- We display merit list and admit students purely on merit basis. In few subjects where the number of seats remain vacant, we give admission to students on 'First Come, First Serve' basis.

6.4 Welfare schemes for

Teaching	<ul style="list-style-type: none"> • Group Insurance • Free Education for their children in the campus • Research Scholarships from Kadi Sarva Vishwa Vidyalaya • Travel Loan for International Conference abroad • Study Leave • Maternal Leave even, to self-financed staff • EPF benefits to the permanent faculties of self-financed staff • Workshops for equipment training as well as soft skills in the campus
Non teaching	<ul style="list-style-type: none"> • Group Insurance • Free Education for their children in the campus • EPF benefits • Workshops for soft skill Training in the campus
Students	<ul style="list-style-type: none"> • Merit & Mean Scholarships & Freeships from Govt. & the Trust • Coaching Classes for Competitive Exams • Medical Insurance & Medical Centre at the Campus premises • Skill based Career Oriented Programs • Publication of Students' Magazine • Entrepreneurship Development Programmes • NSS / NCC activities • Saptadhara • UDISHA & BISAG online Expert Lectures etc.

6.5 Total corpus fund generated

11,56,525/-

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	Knowledge Consortium of Gujarat	Yes	IQAC
Administrative	Yes	Knowledge Consortium of Gujarat	Yes	IQAC

6.8 Does the University/ Autonomous College declares 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?

University reforms

- With the introduction of the CBCS for all the UG and PG programmes continuous evaluation process in internal assessment of 30 marks is inducted. 10 out of the 30 internal marks are given for seminars, quiz, assignments, projects and class room participation.
- The structure of question papers of the external (University) exams of 70 marks is modified so as to include multiple choice questions (MCQ) to prepare the students for competitive examinations.
- The passing level is raised from 35% to 40% in the University as well as internal exam.

Institution reforms

➤ Weekly Test

Institution has been following weekly test pattern for final year B.Sc. students for their internal continuous evaluation. Every Monday, weekly test is organized and out of total 15 such weekly test, marks of best 13 tests are considered for internal assessment. Due to continuous evaluation we have found enhanced performance of the students and rank at university examination. The weekly tests have a weightage of 50% to internal evaluation.

- **Preliminary Examinations:** Along with weekly tests we conduct a prelim, which contributes 50 % to internal evaluation.
- **MCQ tests:** We have introduced MCQ tests as a part of continuous internal

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

6.11 Activities and support from the Alumni Association

For any institution its alumni base serves as its backbone and it can contribute to the development of the organization greatly. We are proud to mention that our Trust is run solely by its alumni.

Our college has an alumni association and the students of this college can register to the alumni association through the college web site.

(<http://www.psshda.org/alumni.php>).

- The alumni association has worked as partner in all round development of our institution. They have instituted scholarships for bright students of the college.
- They have freely donated to the growth of the institution.
- They visit the institution regularly and motivate our students.
- Some of the alumni contribute in designing the syllabi in accordance with the need of the employment market.
- They help us organize campus interviews and guide the students to appropriate jobs.

We organize parent – teachers meetings wherein we discuss general issues regarding students' improvement and gather feedback from parents. Parents take active interest in the development of the college and involve themselves in various activities conducted by college.

6.13 Development programmes for support staff

- The support staff is given soft skill training, especially of Computer Operative Skills to make the administration smooth, effective, accurate and time-saving for the students and the institute as well. In this respect, the newly appointed staff is given training of the Computer Skills by the mother institute MCA college in the campus only.

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

Ecology and Environment:

- In tune with the current awareness as well as employment opportunities in the field of Environment the college has introduced a PG course (M.Sc.) in Environment Science.
- The institute organizes the environment related programmes, seminars, workshops etc. and subscribes journals / magazines related to ecology and environment. The regular environment awareness programmes among the students and society is observed by N.S.S. unit of the institute. As a part of environmental conversation, tree plantation programmes are organized at adopted village. The maintenance of trees and cleanliness drives are organized as a part of regular activities.
- Our departments of Botany, Zoology and Chemistry also organize the programmes for ecological and environmental awareness. The college possesses a well-maintained Botanical Garden including medicinal plants and green house.

Institute conducts green audit of campus. Institute believes in collective duty to care for our environment. Through a project carried out by Bioscience department, it was analyzed that there are about 1000 trees in the campus and the average standing stock of organic carbon in well grown trees is about 2988 tons.

The institute celebrates world earth day, world ozone day etc to create environmental awareness.

Faculty members of biotechnology department have undertaken the projects to,

- Sustain renewable energy source (Biogas plant),
- Waste management (Composting and waste water recycling) and
- Plantation contributes to make the campus green and sustainable.

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.

Introduction Of C.C. in Ceramic Technology

As per the UGC XII Plan Guideline:

“to align higher education with the emerging needs of the economy so as to ensure that the graduates of higher education system have adequate knowledge and skills for employment and entrepreneurship”

To fulfill the ‘**Skills Gap requirements**’ of the Textile & Ginning Industry of Kadi region as well as the 12 kms. surrounding Chemical Industrial GIDC of Chhatral and the Agricultural Farming Traditional Occupation of the North Gujarat Region, the College applied for B.Voc. & C.C. Programs in the aforesaid disciplines.

Ceramic Technology :

- In the Ceramic world, Gujarat is hub for ceramic industries. In which around 1000 units and 100 industries are located in Gujarat. Most important thing, the largest growing companies like CERA Sanitary ware Ltd., Gopal Glass, SOMANY Ceramics Ltd. are located in kadi.
- These industries require skilled manpower for operations, maintenance and repair of industrial equipments for Ceramic industries.
- There is no college available in the state of Gujarat that can generate skilled manpower, which can satisfy the needs of such industries. There will be 100% placement for the students who will pursue this course.

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

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
To Develop the infrastructure for B.Voc. and C.C.	- Two extra classroom construction work is sanctioned
Recruitment of the Teaching & Non-teaching staff for B.Voc. & C.C.	- As per University norms, the recruitment of the Teaching & Non-teaching staff for B.Voc. & C.C. is executed.
To develop infrastructure & Staff for Community College Course 3: Ceramic Technology	- Two room construction is sanctioned and recruitment of the Teaching and Non-teaching staff is accomplished as per Uni. Norms.
Joint Activities with NAAC 'A' graded colleges of Gujarat for academic, research and collaborative work	- With three NAAC 'A' graded colleges, Science, Arts & Commerce College, Pilvai, HNG Uni., V.P. Science College, Vallabh Vidyanagar, S.P. Uni., and M.G. Science College, Guj. Uni.: - 1 State Level Seminar in Mathematics is organized - 1 State Level Science Quiz & PPT Competition is organized - Faculties were invited for Expert Lectures
MOUs with Universities & Industries for academic, research and collaborative work	- MOUs with Agricultural University, Dantiwada & Krishi Vigyan Kendra, Mehsana - MOUs with Cera & Somany Ceramic ISO Co.
To Organize 2 State Level Workshops 7 th BT-CBC-2015 (6 days) (SY and TY)	- Organized 2 state level workshops, for all Gujarat Bio-technology students.
To organize Ceramic Workshop	- Organized 2 Ceramic Workshops in collaboration with Cera Pvt. Ltd.
To organize Digital Literacy Hands on Workshop	- Organized Digital Literacy Hands on Workshop' in collaboration with Narsimhbhai Institute of Computer Studies, Kadi; and The certificates were issued by Microsoft Co.
To organize University & State Level Literary Workshops	- One Day State Level Workshop on Gazal Writing is organized - Three Day University Level Workshop on Elocution Skill is organized
To organize Hands on Practice Workshop	- A State Level Workshop on Hands on Practice Workshop is organized for HPLC, FTIR, GC etc.

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

1. **Micro soil testing Program**
2. **Working with Industry Program**

**Provide the details in annexure (annexure need to be numbered as i, ii,iii)*

Annexure: IV – i, ii

7.4 Contribution to environmental awareness / protection

Energy conservation

- In Chemistry and Biotechnology laboratories as well as in kitchens in hostel, we are using Piped Natural Gas (PNG) as fuel which conserves energy. In institution, we are using CFL at few places like seminar hall, auditorium, and computer laboratory for and power saver tube lights at other places which conserves energy.

Use of renewable energy

- **Use of renewable source of energy for cooking fuel:** Biotechnology department has set a biogas system in campus which is working entirely on kitchen waste generated in hostel, and the gas generated is used as fuel for cooking in hostel kitchens. A pilot plant has been setup that uses 40 kg of kitchen waste and produces gas of 1200 gm per day which saves the requirement of other nonrenewable fuel.
- **Compost from campus agriculture-plant waste:** The agro-waste that is generated in institution premises is converted into compost. The compost prepared from this is used in gardens as source of organic nutrient.

7.5 Whether environmental audit was conducted? Yes ☒ No ☐

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

Pramukh Swami Science and H.D.Patel Arts College is a premier education institute of the state, affiliated to Hemchandrachaya North Gujarat University, Patan. College is re-accredited 'A' grade by NAAC. College is awarded with potential for excellence by UGC first in 2010 and again after re-accreditation CPE phase II up to 2019 by UGC. College is also awarded with AAA rank-1 by Govt. of Gujarat. Institute offers 7 UG, 6 PG, 2 M.Phil and 6 Ph.D. programmes in the faculty of science and Arts. College also offers 8 certificate courses to inculcate skills for the current needs of local industries. College is having strong Institute- Industry linkages with Sun Agrigenetics Pvt., Ltd, Vadodara., Pashupati AgroGreen Industries, Kadi, Pink Vision Agrotech Ltd., Ahmedabad, Claris Life sciences Ltd., Ahmedabad, Hester Biosciences Ltd., Kadi, Intas Biopharma Ltd., Ahmedabad and Corel Pharma, Kadi. College is having advanced research laboratory with sophisticated equipments like HPLC, GC, FTIR, UV visible spectrophotometer. Apart from this, advance plant tissue culture laboratory have been developed for research in the area of tissue culture.

8. Plans of institution for next year

- Motivation of Faculty for major/minor research projects.
- Organization of FDP
- Organization of Sports Events
- Organization of NSS & NCC Events
- Organization of National level Workshop/Conference in Chemistry, Sanskrit, Gujarati, History & English.

Name : Dr Anand Vyas

Name : Dr Ajay Gor

Signature of the Coordinator, IQAC

Signature of the Chairperson, IQAC

_____*_*_*____

Annexure: I

**Pramukh Swami Science & H. D. Patel Arts College, Kadi,
Affiliated to Hemchandracharya North Gujarat University, Patan, Gujarat**

Academic Calendar: 2015-16

Sr. No.	Details	Date
1	Beginning of the Academic Term	15-6-2015
2	Completion Date of the Admission Procedure	24-6-2015
3	Beginning of the Teaching Work (Semester: 1-3-5)	20-6-2015
4	Last of Submission of the Enrolment Forms of the Under-graduate & Post-graduate student of Sem. I	22-8-2015
5	Internal Examination	Completion by 15-10-2015
6	End of the First Term	08-11-2015
7	October-December Uni. Exams. (ATKT) CBCS Sem. : 1-3-5 Uni. Exams.	01-10-2015 to 15-10-2015 1-12-2015 onwards
8	Diwali Vacation	09-11-2015 to 29-11-2015
9	Beginning of the Second Term Academic Work	30-11-2015 to 26-04-2016
10	Internal Test	18-03-2016
11	March-April University Exam.s (ATKT & CBCS Exams.)	29-03-2016 to 05-05-2016
12	End of the Second Term	26-04-2016

Student's Feedback

Year: 2015-16

PRAMUKH SWAMI SCIENCE & H D PATEL ARTS COLLEGE, KADI
Evaluation of the teacher by students – 2015-16
Science Faculty

Que. No.	Department of Mathematics				Department of Chemistry				
	Dr A.S. Gor	Mr A.V. Patel	Mr A.A. Patel	Mr D.G. Patel	Mr C.V. Patel	Dr Z.F. Thakor	Dr M.C.Patel	Dr V.M.Patel	Dr P.M.Chatrabhuji
1	9.000	8.820	8.020	8.700	9.187	7.537	7.437	7.425	6.962
2	8.480	8.760	8.040	8.860	9.000	7.450	7.262	7.775	6.837
3	8.540	8.280	8.220	9.200	8.825	7.450	7.112	7.650	7.000
4	8.440	8.520	7.920	8.700	8.512	7.612	6.000	7.462	6.928
5	8.320	8.340	8.460	8.600	8.600	7.437	7.325	7.562	6.750
6	8.200	8.200	8.280	8.620	8.612	7.275	7.325	7.300	6.487
7	7.880	8.080	8.000	8.220	8.625	7.300	7.387	7.687	6.537
8	9.320	9.560	9.040	9.500	9.200	8.050	8.150	8.275	7.537
9	9.020	9.000	9.020	9.420	8.737	7.950	7.962	7.762	7.400
10	8.920	9.000	8.620	9.360	9.225	8.362	7.762	8.162	7.525
Over all	8.612	8.656	8.362	8.918	8.8523	7.6423	7.3722	7.706	6.3001

Student's Feedback**Year: 2015-16****PRAMUKH SWAMI SCIENCE & H D PATEL ARTS COLLEGE, KADI**
Evaluation of the teacher by students – 2015-16
Science Faculty

Que. No	Department of Physics				Department of Biotechnology			
	Mr S.B. Patel	Mr C.A. Patel	Mr Mohit Swadia	Mr Harshad	Dr K.R. Shah	Mr Ram Suthar	Ms Rajshri Patel	Ms Gayatri Patel
1	5.200	10.000	8.200	8.800	8.500	7.600	7.100	7.700
2	6.200	10.000	8.600	8.600	8.200	7.700	7.200	8.200
3	3.400	9.600	8.400	8.400	8.400	7.900	7.100	8.200
4	4.000	10.000	8.400	9.000	8.200	7.600	7.100	7.700
5	6.000	10.000	8.200	8.600	8.400	7.700	7.000	7.600
6	4.800	9.800	8.000	8.600	8.200	7.800	6.900	7.500
7	4.200	9.800	8.000	9.000	8.500	6.900	7.200	8.100
8	3.400	10.000	8.000	9.400	8.700	7.300	7.200	8.000
9	5.200	10.000	10.000	9.600	8.400	7.600	6.900	7.600
10	5.200	9.200	8.800	9.200	8.400	5.900	7.500	8.300
Over all	4.76	9.84	8.46	8.92	8.39	7.4	7.12	7.89

Student's Feedback

Year: 2015-16

PRAMUKH SWAMI SCIENCE & H D PATEL ARTS COLLEGE, KADI **Evaluation of the teacher by students – 2015-16** **Arts Faculty**

Sr No	Department	Name of the Faculty	Students' Feedback Form Questionnaires										Over all Evaluation
			1	2	3	4	5	6	7	8	9	10	
1	Sanskrit	Dr M.J.Joshi	8.65	8.46	8.5	8.69	8.30	8.84	8.61	8.73	8.53	8.92	8.62
		Dr B. H. Vankar	9.23	9.34	9.07	9.11	9.11	9.07	9.07	9.38	8.96	8.84	9.12
		Dr N. K. Patel	8.92	8.23	8.96	8.96	8.69	8.38	8.38	8.73	8.5	8.42	8.61
		Dr A. H. Vyas	8.84	8.65	8.42	8.69	8.46	8.65	8.53	9	8.76	9.03	8.70
2	History	Dr S.V. Chaudhari	9.63	9.56	9.5	9.63	9.81	9.55	9.55	10	9.85	9.8	9.69
		Dr N.J.Parikh	9.36	9.41	9.21	9.55	9.38	9.4	9.38	9.76	9.46	9.73	9.46
		Dr D.M.Patel	8.56	8.81	8.46	8.51	8.93	8.75	8.71	9.4	9.31	9.36	8.88
		Dr A.H.Vyas	9.51	9.4	8.86	9.26	9.26	9.25	9.15	9.71	9.68	9.56	9.36
3	Gujarati	Dr P.P.Patel	8.98	9.02	9.10	9.11	9.01	8.92	9.05	9.20	9.43	9.49	9.13
		Dr B.S.Patel	9.49	9.28	9.20	9.27	10	9.43	9.28	9.30	9.47	9.62	9.46
		Mr K.M.Trivedi	9.11	8.92	8.85	8.97	9	8.91	9.07	9.34	9.30	9.31	9.08
		Dr A.H.Vyas	9.36	9.24	9.05	9.07	9.24	8.84	9.14	9.28	9.24	9.44	9.19
4	English	Ms Alpa Jani	7.94	7.94	7.91	8.045	8.33	8.13	8.60	8.50	8.58	8.81	8.28
		Ms Kundan Makwana	8.33	8.56	8.18	8.17	8.24	8.37	8.60	8.63	8.71	9.39	8.52
		Mr Samir Pandya	8.29	8.25	8.31	8.08	8.13	8.29	8.18	8.91	8.59	8.51	8.35
		Ms Dhara Choksi	8.12	8.09	8.11	7.86	7.86	8.01	7.98	8.68	8.43	8.42	8.15
		Ms Devarshi Modi	8.27	8.28	8.17	7.98	8	8.10	7.98	8.67	8.52	8.42	8.24
		Dr A. H. Vyas	9.42	9.55	9.36	9.42	9.36	9.29	9.26	9.43	9.34	9.52	9.39

PRAMUKH SWAMI SCIENCE & H D PATEL ARTS COLLEGE, KADI
Evaluation of the teacher by students – 2014-15
Students' Feedback Form

Name of the Teacher:

Department:

No.	Attributes	Avg. score (out of 10)
1	Communication Skills (in terms of articulation and comprehensibility)	
2	Interest generated by the teacher	
3	Ability to integrate course material with environment/other issues to provide a broader perspective	
4	Ability to integrate across the courses / draw upon other courses	
5	Accessibility of the teacher in and out of the class (includes availability of the teacher to motivate outside class discussion)	
6	Ability to design quizzes/examinations/assignments /projects to test understanding of the course	
7	Provision of sufficient timely feedback	
8	Knowledge base of the teacher	
9	Sincerity / Commitment of the teacher	
10	Overall rating	
Moderate (below 6)		Good (6-8)
		Excellent (above 8)

The institute appreciates your sincere efforts and is hopeful for further improvement in concerned areas in order to enhance the overall performance of the students.

Best wishes,
Dr. A.S. Gor
(Principal)

Annexure : III

Paper Publications With Impact Factor & h index

Sr. No.	Title	Journal	Year & Volume(No); Page	ISSN No/ Impact factor
Dr Ajay S Gor <h4 style="text-align: center;">h-index: 5 i10: 4</h4>				
1	Numerical behavior of instability in displacement process through homogeneous porous media	International Journal of Mathematics and Computer Applications Research (IJMCAR)	2014 4(4);33-46	ISSN 2249-6955 IF: 4.29
2	Finite Element solution of one dimensional flow in unsaturated porous media	IOSR Journal of Mathematics	2014 10(3);49-57	ISSN 2319-7676
3	Finite Element solution of one dimensional flow in unsaturated porous media with parabolic permeability	ISST Journal of Mathematics and Computing system	2014 5(1);15-24	ISSN 0976-9048
4	Multi-Objective inventory model under fuzzy environment with storage space and production cost constraints by Karush-Kuhn-Tucker conditions approach	International Journal of Innovations in Science and mathematics	2014 2(5);431-434	ISSN 2347-9051
Prof. Ashok A. Patel				
1	Newsboy problem with lost sales recapture as function of $\log_m(1 + \frac{r}{p})$ and Beta distributed demand error	IOSR Journal of Mathematics	(2015)(C) 11(2), 10-17	ISSN 2278-5728

2	Newsboy problem with lost sales recapture as function of $\left(\frac{r}{p}\right)^m$ and Beta distributed demand error	IOSR Journal of Mathematics	(2015)(C) 11(2), 94-101	ISSN 2278-5728
Dr.K.J.Bhatt h-index: i10:				
1	Ocimum Sanctum: The Indian Medicinal Plant International	Journal of Chemtech Applications	Vol. 3Issue1,Feb2014 ,	ISSN2319-7099
Dr. M. C. Patel h-index: 7 i10: 6				
1	Antimicrobial studies of newly synthesized 1-[(4-methoxycinnamoyl) amino]-2-methyl-4-aryl methine-5-oxoimidazolines	(OCAIJ)	2015 11(7);267-272	ISSN 0974-7516
2	Synthesis and characterization of 1,3,4-thiadiazole clubbed thiol derivatives	International Journal of Chemtech Applications (INTJCA)	2015 4(1);26-34	ISSN 2319-7099
3	Synthesis and characterization of Novel 2-sulfanyl-N-(1,3,4-thiadiazol-2-yl) acetamide derivatives	International Journal of Chemtech Applications (INTJCA)	2015 4(3);26-34	ISSN 2319-7099
4	Studies on 1-[(4-methoxycinnamoyl) amino]-2-phenyl-4-aryl methine-5-oxo-imidazolines as antimicrobial agents	International Journal of Chemtech Applications (INTJCA)	2015 4(2);21-25	ISSN 2319-7099
5	Design and biological screening of some new 1-[(4-methyl cinnamoyl) amino]-2-methyl-4-aryl methine-5-oxo-imidazolines	International Journal of Chemtech Applications (INTJCA)	2015 4(2);26-31	ISSN 2319-7099

Dr. P. M. Chatrabhuji		h-index: 1	i10:	
1	Synthesis and characterization of 1,3,4-thiadiazole clubbed thiol derivatives	International Journal of Chemtech Applications (INTJCA)	2015 4(1);26-34	ISSN 2319-7099
2	Synthesis and characterization of Novel 2-sulfanyl-N-(1,3,4-thiadiazol-2-yl) acetamide derivatives	International Journal of Chemtech Applications (INTJCA)	2015 4(3);26-34	ISSN 2319-7099
3	Studies on 1-[(4-methoxycinnamoyl) amino]-2-phenyl-4-aryl methine-5-oxo-imidazolines as antimicrobial agents	International Journal of Chemtech Applications (INTJCA)	2015 4(2);21-25	ISSN 2319-7099
4	Design and biological screening of some new 1-[(4-methyl cinnamoyl) amino]-2-methyl-4-aryl methine-5-oxo-imidazolines	International Journal of Chemtech Applications (INTJCA)	2015 4(2);26-31	ISSN 2319-7099
5	Synthesis of 5-oxo-imidazolines derivatives as anti-microbial agents	International Journal of Chemtech Applications (INTJCA)	2015 4(1);51-56	ISSN 2319-7099
6	Synthesis, Characterization and antimicrobial studies on novel 1-[(4-chloro cinnamoyl) amino]-2-methyl-4-aryl methine-5-oxo-imidazolines.	International Journal of Chemtech Applications (INTJCA)	2015 4(1);44-48	ISSN 2319-7099
7	Antimicrobial studies of newly synthesized 1-[(4-methoxycinnamoyl) amino]-2-methyl-4-aryl methine-5-oxoimidazolines	(OCAIJ)	2015 11(7);267-272	ISSN 0974-7516

8	Synthesis of 5-oxo-imidazolines derivatives as anti-microbial agents	International Journal of Chemtech Applications (INTJCA)	2015 4(1);51-56	ISSN 2319-7099
Dr Kamlesh shah h-index: 3 i10: 1				
1	Biodegradation of azo dye compounds	International Research Journal of Biochemistry and Biotechnology	1 (2)005-013	ISSN: 2167-0438
2	Study of wilt producing Fusarium sp. from tomato (Lycopersicon esculentum Mill)	International Journal of Current Microbiology and applied science	3(8) 854-858	ISSN: 2319-7706 1.59 IF
3	Formation of Composting from Food Waste & Neem Plant Debris	SSRN-e library	SSRN-id2460794	E library
4	Assessment of Coastal Water Quality Parameters of Selected Areas of Marine National Park & Sanctuary (Okha, Sikka & Khijadiya)	SSRN-e library	SSRN-id2486522	E library
5	Optimization and production of Polyhydroxybutarate(PHB) by <i>Bacillus subtilis</i> G1S1 from soil	International Journal of Current Microbiology and applied science	3 (5) 377-387	ISSN: 2319-7706 IF 1.59
6	Assessment of Plankton biodiversity of Selected Areas of Marine National Park & Sanctuary (Okha, Sikka & Khijadiya)	International Journal of Chemtech Applications	Vol. 3; Issue 3; Page 20-29	ISSN: 2319-7099

Best Practice: I

Micro Soil Testing Project:

The goal is to provide Micro soil of lands of farmers nearby Kadi town. The project under-taken by the college with direct involvement of students is intended to inform farmers regarding the health of land and the crops that will be suitable for the land. We take samples of soil and analyze it in the college laboratory to identify important soil elements (Nitrogen, Potassium and Phosphorous) present in soil and the conductance & pH of soil. A farmer with such a micro soil testing can identify which crop he should consider and how much fertilizer his land will require.

1. The Context

The Soil Health Card scheme launched by the Gujarat government to increase the agricultural productivity and crop quality is proving to be a major hit with 1.8 lakhs farmers of the state already registering for it. The practice adopted by the government would prove helpful to the farmers as well as the students.

2. Goal:

The soil health card would benefit 37 lakh farmers in the state and help them in taking major decisions about the crop and fertilizers suitable for their land.

- To increase agricultural productivity, it becomes highly necessary for a farmer to know the soil elements of his farm before farming. The fertility and productivity depend upon inherent soil elements. If the farmer comes to know the proportion of important soil elements (Nitrogen, Potassium and Phosphorous) present in soil and the conductance & pH of soil, he can identify which crop to consider and how much fertilizer the land will require. Such knowledge will lead the farmer to a large productivity of crops with optimal use of fertilizer. With a view to make the farmer aware of above mentioned facts, the Government authorities of Gujarat have stirred an ambitious project to provide a **Micro Soil Testing Report** to each farmer of all over Gujarat.

1. The Practice

- For this prolonged mission of Agricultural Development and for the programme of providing Soil Health Card to each farmer, the authorities of the State Government employed Gram Sevaks and some local agencies to collect soil samples.
- On scientific basis, these collected samples were labelled and sent to our laboratory for testing.
- The authorities of the State Government allotted the grant of Rs. 80/- per sample. This grant was useful to purchase necessary equipments and chemicals. This task was performed with the help of the staff and students.
- The collected samples were labelled and their elements: Nitrogen, Phosphorus, Potassium, etc., were tested and analyzed. The pH and Conductance of the soil samples are also measured.

Mineral nutrients are divided into two types: macronutrients and micronutrients. Macronutrients are further divided into primary and secondary. Primary nutrients are used in large quantities by plants and they include nitrogen, phosphorus and potassium. Secondary nutrients include calcium,

magnesium and sulphur. Micronutrients are needed in very small amounts and they include boron, copper, iron, manganese and zinc. Having the right amount of nutrients is essential for normal plant growth and reproduction. As nutrient ions are removed from soil solution by plant absorption they are replenished from several sources. Seldom is the rate of renewal for all essential elements from untreated soil fast enough to achieve maximum crop production. To augment this removal, fertilizers are usually applied. Soil pH is one of the most important soil properties that affect the availability of nutrients and hence it was also measured. In general macronutrients tend to be less available in soils with low pH while micronutrients tend to be less available in soils with high pH. In this study, seven nutrients were analyzed. The four macronutrients analyzed include potassium, calcium nitrates and phosphates and three micronutrients zinc, iron and copper.

II. Role of Nutrients

To Plants Macronutrients Potassium have a number of structural functions in plants and animals. It keeps the cell cytoplasm levels relatively constant, assists in protein synthesis and energy metabolism. Potassium is absorbed by plants in larger amounts than any other mineral element except nitrogen and in some cases calcium. Calcium which is an essential part of plant cell wall structure provides for normal transport and retention of other elements as well as the strength in the plant. It also counteracts the effects of alkali salts and organic acids within a plant. Phosphorous occurs in soil almost entirely as phosphates (PO_4^{3-}) and resembles nitrogen in that both inorganic and organic forms are of major significance in agricultural soil. Agricultural soils usually cannot meet demand for phosphate and application of fertilizer is essential. Phosphorus is an essential part of the process of photosynthesis. It is involved in the formation of all oils, sugars and starches. It helps with the transformation of solar energy into chemical energy; proper plant maturation; withstanding stress, affects rapid growth and encourages blooming and root growth. Nitrogen in the inorganic form of (NO_3^-) is important because it is the one utilized by plants. Crop demand for this nutrient is high thus the need to apply fertilizer. Nitrogen is a part of all living cells and is a necessary part of all proteins, enzymes and metabolic processes involved in the synthesis and transfer of energy. Nitrogen is a part of chlorophyll, the green pigment of the plant that is responsible for photosynthesis. It assists plants with rapid growth, increasing seed and fruit production and improving the quality of leaf and forage crops.

Macronutrients are essential to plant growth but utilized in trace quantities. Their major role is as activators in numerous enzyme systems. Micronutrients are toxic when they are in very high levels thus they become a threat to human and animals life and cause stunted growth and poor yield in plants³. Copper is an essential micronutrient for plants and animals. It is involved in many enzyme systems of plants and animals. Iron is an essential minor nutrient for plants and animals. It is involved in chlorophyll synthesis in chloroplast. Zinc is essential for the transformation of carbohydrates. It regulates consumption of sugars. It is part of the enzyme systems which regulate plant growth.

Soil health Card Programme 2010-2016

Sr. No.	Year	Grant	Samples Analysed
1	2010-11	8,00,000/-	10000
2	2011-12	3,70,080/-	6167
3	2012-13	5,77,560/-	9168
4	2014-15	13,16,060/-	10899
5	2015-16	11,26,425/-	9795
Total Grant		41,90,125/-	Total Samples: 46029

The samples were analyzed for different physicochemical tests including pH, Carbon content, Potassium, E.C and Phosphorous. Based on these data a health card is generated.

- Macro Soil Testing project is being carried out by students of B.Sc. and M.Sc. In this program, students get remuneration as well as certificate from the government. Students get exposure and hands-on training for using different equipments for soil analysis.

5. Evidence of Success

- The college has been recognized as a Soil Testing Laboratory from Govt. of Gujarat. We tested the soil of our Goushala (Cowshed) Farm where we have planted Wheat. After soil analysis we came to know that the soil contains high Potassium and moderate Nitrogen and Phosphorus. So, according to the Soil Health Card we recommended to our farmers to avoid the use of potash fertilizer in the farm for Wheat crop. After following our instruction, Gaushala (Cowshed) farmers found an increase in the yield of wheat as compared with previous years. Apart from this, it reduced the wastage of fertilizer and helped in limited use of Nitrogen and Phosphorus fertilizer. We also gave instruction to use organic compost which helps in balancing the mineral elements essential for plant growth.

Conclusion:

- As per the soil analysis report, we reduced the use of chemical fertilizer cost by 21.34% per hectare which resulted in a 15.38% increase in the production and 20.12% increase in the net Income from the wheat crop sown /hectare in the Gaushala farm (Cow-house).

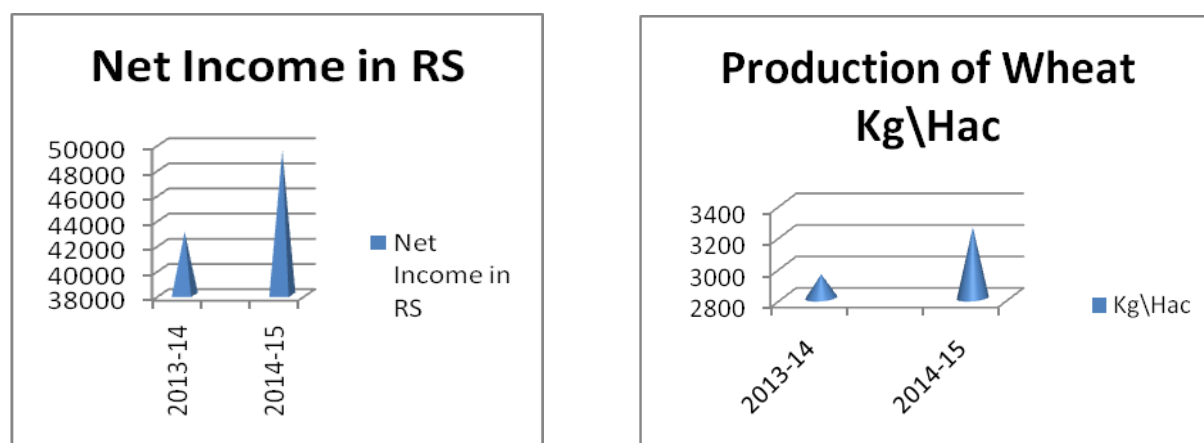


Figure 1 Net Income and Production of Wheat

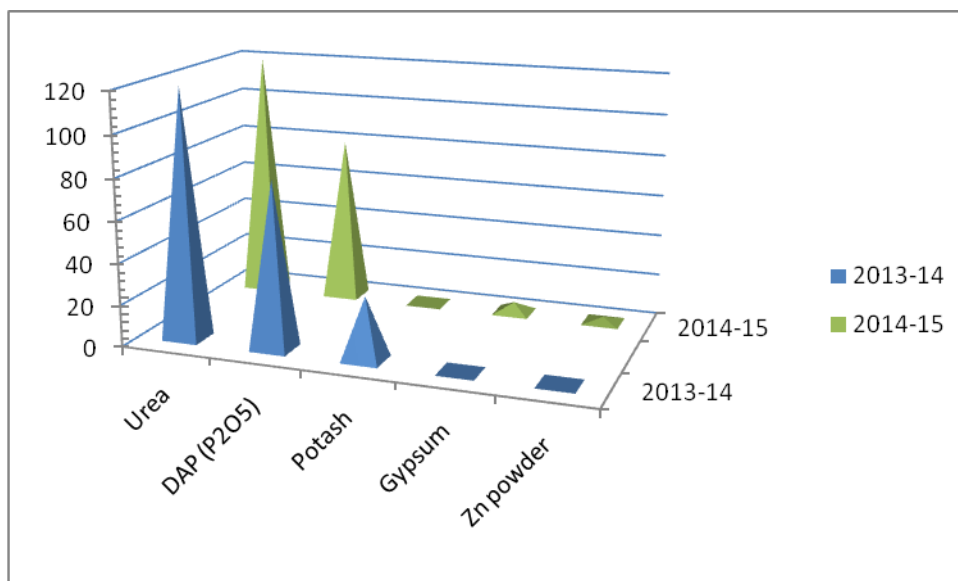


Figure 2 Fertilizer Used for Wheat Production

2. Best Practice:

Working with Industry Program

Kadi : The Hub of Industries:

Opportunities

- **Textile Sector:**

- Kadi is known as Asia's largest hub for Cotton & Oil industries.
- Around 300 Cotton & Oil industries within 5 kms radius.
- Gujarat producing 35% cotton of the national average product.
- Kadi is also the export hub of Cotton-bales as 15% cotton-bales (of the national average) have been exported from Kadi

- **Pharmaceutical Sector :**

- Over last few years, Gujarat's contribution in the growth of India's Pharmaceutical Industry has been significant.
- The state commands 42% share of India's Pharmaceutical turn over and 22% share of exports.
- There are currently approximately 3,500 drug manufacturing units in Guj.
- The major drug manufacturing units, pharma. Industrial, contract research organization in Pharma Industry etc are situated in Ahmedabad-Kadi GIDC corridor.

- **Agriculture Sector :**

- Kadi is a centre of North Gujarat where Farming is a traditional occupation for people.
- Besides traditional farming of cereals and pulses people are doing farming of spices and other crops like tomato, lemon, castor oil seeds.

- **Ceramic Sector :**

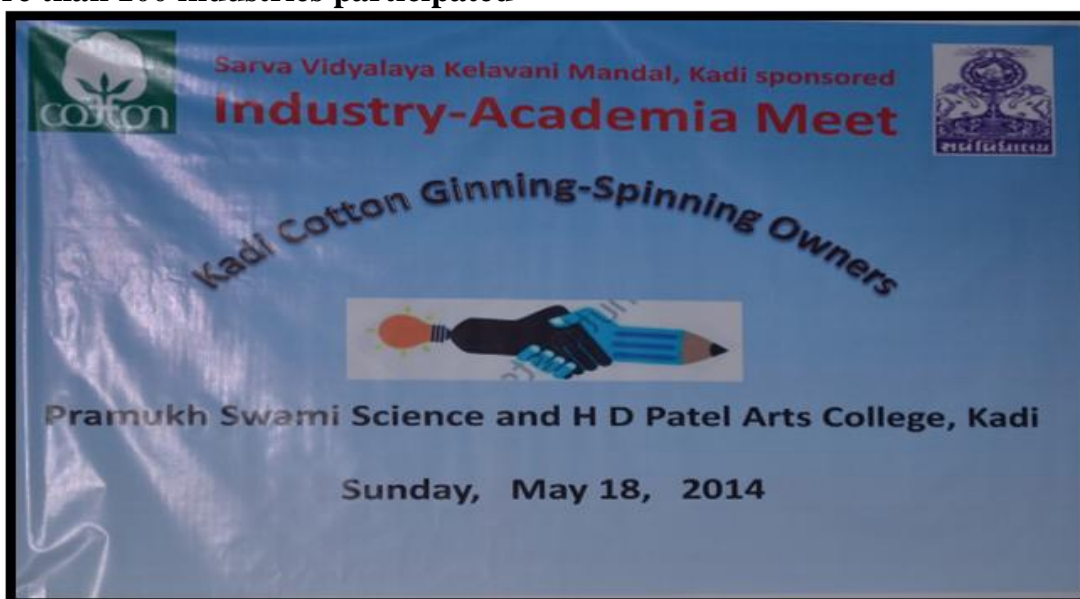
- India is world number 3 in Ceramic industries with production of 750 million sq.mtr. Ceramic products.
- Gujarat is Nation's largest hub for Ceramic industries sharing 70% of national ceramic production.
- There are around 20 ceramic industries around Kadi region including multinational Companies like Cera Sanitary wares Ltd. and Somany Ceramics Ltd. with more than 1000 crores of annual turnover.

- Introduction of B.Voc. in Textile and Ginning Technology
B.Voc. in Pharmaceutical Chemistry
- Introduction of C.C. in Textile and Ginning Technology
C.C. in Agriculture and Soil Sciences
C.C. in Ceramic Technology

• 4 Industry-Academia Meets Organized:

1st : Industry Academia Meet on Textile-Ginning Technology

- More than 100 industries participated



2nd : Industry Academia Meet on Pharmaceutical Chemistry

- More than 70 industries participated



3rd : Industry Academia Meet on Agriculture & Soil Sciences

- More than 35 industries participated





4th : Industry Academia Meet on Ceramic Technology

- More than 32 industries participated



Identification of the “Skill Gap Requirements of the Industries”:

1st :Textile-Ginning Technology

- Operation of ginning industry equipments
- Analysis of cotton raw material
- Finished product analysis
- Electrification of industry
- Repair of equipments
- Maintenance of equipments
- Inspection & testing of machine tools
- Use of latest casting welding technology
- Advanced machine tool designing by CAD & CAM

2nd : Pharmaceutical Chemistry:

- Learning the basic sciences related to Pharmaceutical Chemistry
- Analysis of the marketed drugs qualitatively & quantitatively
- Synthesis of Drug intermediates of Drug-impurities
- Operation of instruments related to Pharmaceutical Industry.
- Method Development & validation
- Good Laboratory Practice & Good Manufacturing practice
- Phytochemistry
- Microbial analysis
- Tablet and capsule machine operator

3rd : Agriculture & Soil Sciences

- Use of latest agri. Technology
- Application of Micro irrigation techniques & maintenance
- Lack of interest towards traditional farming
- Lack of Knowledge of advance agro. Technologies
- Soil analysis, conservation & utilization for business in agri. Sector
- Tissue Cultured Farming Technologies
- Organic Farming & Cash crops production.
- Hands-on practices for operation of latest farm machinery & its maintenance
- Lack of expertise for food processing techniques.

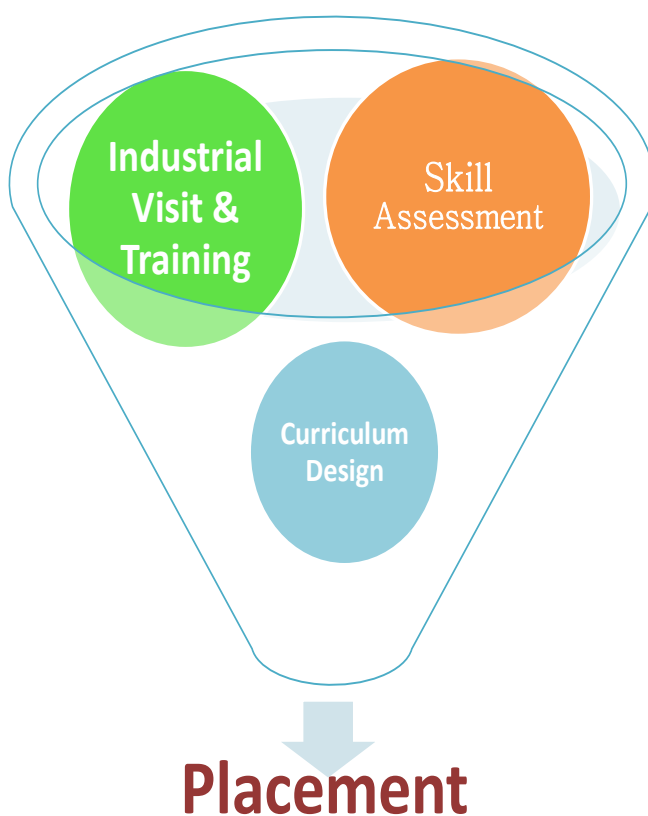
4th : Ceramic Technology

- Know-how of the raw materials & finished products.
- Forming & finishing ceramic products
- Drying & Glazing process
- Casting
- Moulds making

Strong Industrial Linkage

- Strong industrial linkages with more than 44 industries for skill based programs.....
- 16 Cotton-ginning & spinning industries
- 11 pharmaceutical industries
- 8 agriculture industries
- 4 ceramic industries

Role of Industry



Students' Enrichment Programs:
Industrial Visits and Trainings & Industrial Experts' Lectures:
1. Textile and Ginning Technology Program:

As an expert:

Sr.No	Role of Industrial Representative (Theory)			
	Name of Industry	Name of Industry Representative	Designation	Lecture /Practical Title
1	Vivekanand Industries	Mr. Nirav B. Patel	Head (Export Division)	How to increase ginning productivity?
2	Pashupati Cotspin LLP	Mr. G. G. Patel	QC Head	Different type of yarn testing method
3	Janki Cotton Industries	Mr. Himanshubhai Khamar	Owner	Parameters affecting ginning productivity
4	Avadh Cot Industries	Mr. Gautam Patel	Partner	Testing method of different cotton properties
5	Avadh Cot Industries	Mr. Bakul Patel	Maintenance Head	Maintenance of Ginning machinery and seed transportation system
6	Jagdish Cotton Industries	Mr. Jagdishbhai Patel	Owner	Introduction about ginning process and maintenance
7	Pashupati Cotspin LLP	Mr. Ashish Patel	Spinning Head	Introduction about Spinning process
8	Pashupati Cotspin LLP	Mr. Ashish Patel	Spinning Head	Study about cleaning efficiency of blowroom and carding and waste level at blowroom and carding
9	Janki Cotton Industries	Mr. Himanshubhai Khamar	Owner	Moisture Testing method of raw cotton, Cotton seed and Cotton Bale

10	Vivekanand Industries	Mr. Gautam B. Patel	Maintenance Head	To perform practical of Double roller gin Erection, Ginning %
11	Vivekanand Industries	Mr. Nirav B. Patel	Head (Export Division)	Identification and method of purchase raw- cotton at cotton market
12	Pashupati Cotspin LLp	Mr. Samiran Das	General Manager (Spinning)	To perform practical of Neps reduction at carding, short fibre removal % at combing in spinning
13	Jagdish Cotton Industries	Mr. Jagdishbhai Patel	Owner	Moisture Control system at ginning
14	Shivshakti Cotton Industries	Mr. Pravinbhai patel	Maintenance Head (Ginning)	Maintenance of Seed and loose cotton transportation system
15	Pashupati Cotspin LLp	Mr. G. G. Patel	QC Head	Parameters affecting Yarn count variations and yarn imperfections
16	Avadh Cot Industries	Mr. Bakul Patel	Maintenance Head	Grooving method of leather roller of double roller gin (1) Manual Grooving (2) Automatic Grooving
17	Tirupati Cot Fab. Pvt. Ltd.	Mr. Rashesh Shah	QC Lab. Incharge	Testing of colour grade, micronaire value of raw cotton

Industrial Training:

49 students have taken industrial training during the first year of their study. During industrial training , students have learned skills of testing of cotton properties, cleaning efficiency of blow room and carding, Neps reduction at carding, short fibre removal % at combing in spinning, waste level at blow room and carding and Testing of yarn properties.

Bachelor of Vocation					
Sr. No.	Name Of Student	Industry where training carried out	Duration	Objective	Industry Guide
1	Patel Ajaykumar Jayantilal	Pashupati Cotspin LLP, Balasar, Kadi	September, 2014	To perform practicals of cleaning efficiency of blowroom and carding, Neps reduction at carding, short fibre removal % at combing in spinning, waste level at blowroom and carding and Testing of Yarn properties.	Mr. Tushar Trivedi (Maintenance Head)
2	Patel Ankit Narendrabhai				
3	Patel Chirag Subhashbhai				
4	Patel Kameshkumar Pravinbhai				
5	Patel Mehulkumar Bharatbhai				
6	Patel Parthkumar Baldevbhai				
7	Patel Pratikshkumar Rajeshbhai				
8	Patel Sudhirbhai Parsottambhai				
9	Prajapati Kaushikkumar Naranbhai	Vivekanand Industries, Rangpurda, Kadi	January, 2015	To perform Practical of Ginning Productivity, Ginning %, Maintenance of Seed and loose cotton transportation system, Testing of cotton properties.	Mr. Gautam B. Patel (Maintenance Head)
10	Thakar Ankitkumar Manubhai				
11	Vyas Mayurbhai Harikrushna				
12	Joshi Hirenkumar Sudhirkumar				
13	Nayi Gauravkumar Haribhai				
14	Kureshi Farukbhai Firozbhai				
15	Shekh Akaramkhan Rahematkhan				

Community college					
Sr. No.	Name of Student	Industry where training carried out	Duration	Objective	Industry Guide
1	Bava Dharmendrapuri Babupuri	Jagdish Cotton Industries, Thol road, Kadi	October, 2014	To perform Practicals of Ginning Productivity, Ginning %, Maintenance of Seed and loose cotton transportation system, Testing of cotton properties.	Jagdishbhai Patel
2	Bhavsar Brijeshkumar Shaileshbhai				
3	Patel Chiragkumar Dineshbhai				
4	Patel Jaydipchandra Bharatbhai				
5	Patel Jaykumar Maheshbhai				
6	Patel Mayur Sanjaykumar				
7	Patel Rohitkumar Ratilal				
8	Prajapati Amaratkumar Mansukhbhai				
9	Prajapati Chiragkumar Prahaladbhai	Shivshakti Cotton Industries, Kadi	February, 2015	To perform practicals of Ginning Productivity, Ginning % , Maintenance of Seed and loose cotton transportation system, Testing of Cotton Properties.	Mr. Pravinbhai patel(Maintenace Head- Ginning)
10	Prajapati Mehulkumar Jagdishbhai				
11	Raval Jayeshbhai Babubhai				
12	Raval Maheshbhai Kalabhai				
13	Raval Vishnukumar Kalubhai				
14	Sathavara Himanshukumar Dashrathbhai				
15	Shah Achal Rajmal				
16	Solanki Bharatbhai Narsinhbhai				
17	Solanki Harichandrasinh Vanrajsinh				

18	Solanki Mahendrasinh Chamansang	Pashupati Cotspin LLP, Balasar, Kadi	January, 2015	To perform practicals of cleaning efficiency of blowroom and carding, Neps reduction at carding, short fibre removal % at combing in spinning, waste level at blowroom and carding and Testing of yarn properties.	Mr. Samiran Das (General Manager- Spinning)
19	Solanki Mahobatsinh Bharatsinh				
20	Solanki Vaktubha Aditsang				
21	Solanki Vipulkumar Bhavubha				
22	Thakor Nareshji Natuji				
23	Thakor Sanjaykumar Babuji				
24	Yogi Vipulkumar Shaileshbhai				
25	Bhavsar Viralkumar Kumarpal				
26	Goswami Dhananjaygiri Vasantgiri	Vivekanand Industries, Kadi	March, 2015	To perform Practical of Ginning Productivity, Ginning %, Maintenance of Seed and loose cotton transportation system, Testing of cotton properties.	Mr. Nirav B. Patel (Head- Export Division)
27	Jadav Vipulbhai Natubhai				
28	Patel Niravkumar Pankajbhai				
29	Prajapati Ketan Jayantibhai				
30	Solanki Dilipsinh Kirtisinh				
31	Thakor Chamanji Babuji				
32	Thakor Surajkumar Manuji				
33	Sadhu Jigarkumar Mahendrabhai				
34	Parmar Rahulsinh Bhikhusinh				

❖ Pharmaceutical Chemistry:

As an expert:

Sr. No.	Name of Industry	Name of Expert	Designation	Topic Covered
1	Corel Pharmachem Pvt. Ltd., Kadi	Mr. S.G. Prajapati	General Manager, Plant	Laboratory Safety Hazards
2		Mr. Parishrut P. Patel	Manager, Production	Batch Manufacturing Report
3		Mr. Tapan S. Patel	Manager, QC/QA	Standardization of Chemicals
4		Mr. Arvind G. Patel	Production Incharge	Different Pharmaceutical Buffers
5	Kayvee Aeropharma Pvt. Ltd., Kadi	Mr. Bhuvan Shah	Director	Good Manufacturing Practice
6		Mr. Chetan N. Shukla	Manager, Production	Production Batch Planning
7		Mr. Bipin J. Patel	Production Incharge	Dispatch & Packing of product
8		Mr. Jigrish B. Bhatt	Manager, QC	Different Concentration of Solutions
9	Amneal Pharmaceuticals Pvt. Ltd., Ahmedabad	Mr. Paresh Trivedi	Assistant Manager, ARL	Analytical Weighing Balance Calibration
10	Torrent Pharmaceuticals Pvt. Ltd., Chhatral	Mr. Mihir Jani	Sr. Executive, QC	pH Meter Calibration

Industrial Training:

Industrial Training: 20 students have taken training during their first year study. During the training, students have learned skills of Laboratory Safety & Hazards, Standardization of Chemicals, and Calibration of Analytical Weighing Balance and also learned working in the Production unit & QC Laboratory of the Industry.

Sr. No.	Name of Student	Industry where training carried out	Duration	Objective
1	Darshana Ashvinkumar Gosai	Corel Pharmachem Pvt. Ltd., Kadi	February & March 2015	To perform practicals like Laboratory Safety & Hazards, Standardization of Chemicals, Calibration of Analytical Weighing Balance and also took traning for the Production area & QC Laboratory of the Industry
2	Jasmin Kamleshbhai Janasari			
3	Zinalbahen Jadavajibhai Nayi			
4	Ronakkumar Rajendrabhai Parejiya			
5	Himanshu Maheshbhai Patel			
6	Janakkumar Rameshbhai Patel			
7	Maitri Dhirajbhai Patel			
8	Nileshkumar Ashokkumar Patel			
9	Niralee Bharatbhai Patel			
10	Kajal Rameshbhai Prajapati			
11	Asmitaben Amrutbhai Patel	Kayvee Aeropharma Pvt. Ltd., Kadi	August & September 2015	To perform practicals like Laboratory Safety & Hazards, Standardization of Chemicals, Calibration of Analytical Weighing Balance and also took traning for the Production area & QC Laboratory of the Industry
12	Nageshkumar Mulchandbhai Rathod			
13	Kirankumar Jayantiji Takor			
14	Sureshbhai Chanduji Thakor			
15	Nikulsinh Narendrasinh Vihol		February & March 2015	
16	Dhrupalkumar Shashikantbhai Pandya			

17	Patel Dhiraj Babubhai			
18	Pratikkumar Vishnubhai Patel			
19	Ashvinkumar Jadavjibhai Hadiyal			
20	Tejpal Jivanbhai Bharvad			

❖ Agriculture and Soil Sciences

As an expert:

Sr. No.	Name of Industry	Name of Expert	Designation	Topic Covered
1	Pashupati Agro Ltd, Kadi	Mr. Vinodbhai Patel	Owner	Green House Farming
2	Greenfield Biotech, Gandhinagar	Dr. Vishal Oza	Owner	Plant Tissue Culture & its Application for Commercial Production
3	Chlorophyll Biotech, Gandhinagar	Mr. Jimmesh Patel	Owner	Organic Farming & its Certification Process
6	Gujarat Hybrid Seeds, Kundal	Mr. Vinodbhai Patel	Owner	Hybridization of Castor Seeds
7	Sagar Lakshmi Seeds, Nandasan	Mr. Dilipbhai Majmudar	Manager	Breeding of Castor Seeds
8		Mr. Fuljibhai Chaudhri	Farmer	Utilization of Resistant Hybrids of Castor

Industrial Training: 17 students have taken training during their first year study. During the training, students have learned skills for Basics of seed technology, its breeding and marketing , organic farming and Plant tissue culture technique.

Sr. No.	Name of Student	Industry where training carried out	Duration	Objective
1	Patel Niravkumar K.	Chlorophyll Biotech Gandhinagar	ongoing(May end)	To perform practicals of organic farming, its certification process
2	Nayi Jitendrakumar V.			
3	Patel Prashantkumar A.			
4	Patel Nitinkumar R.	Gujco masol,Narol,Ahmedabad	1week(May end)	Basics of seed technology, its breeding and marketing
5	Patel Palakkumar K.			
6	Patel Priyankkumar B.			
7	Patel Anandprakash R.			
8	Patel Vasantkumar N.			
9	Patel Gautambhai T.	Farming solutions,ahmedabad	1 week(May end)	Fruits and vegetables processing and their maintanance before they are introduce to market
10	Patel Heena K.			
11	Patel Khyati K.			
12	Patel Aratiben B.			
13	Arsodiya Prarthanaben B.			
14	Thakor Jagrutibahen Z.			
15	Vyas Mehulkumar D.	Greenfield Biotech Gandhinagar	ongoing(May end)	Commercial banana plants production by Plant tissue culture method.
16	Patel Avaniben G.	Vikram Seeds Agency, Bayad.	1 week(May end)	Basics of seed technology, its breeding and marketing
17	Patel Divyaben H.			

Three Tier Assessments:

- Level 1: Evaluation at Institute level
- Level 2: Evaluation at University level by inviting an industry representative as an examiner
- Level 3: At National level by Sector Skill Council

Evaluation by An Industry Representative:

Textile and Ginning Technology			
Name of Industry	Name of Industry Representative	Designation	Examiner
Vivekanand Industries	Mr. Gautam B. Patel	Maintenance Head	Theory Examiner in Seed Cotton Processing
Vivekanand Industries	Mr. Nirav B. Patel	Head (Export Division)	Theory Examiner in Ginning Technology-I
Pashupati Cotspin LLP	Mr. G. G. Patel	QC Head	Theory Examiner in Spinning Process-II
Arvind Limited, Santej	Mr. A. N. Vare	Production Incharge	Theory Examiner in Spinning Process- I, Spinning Machinery- I, Spinning Process- II and Practical Examiner in Spinning Practice (TGT 205)
Pharmaceutical Chemistry			
Name of Industry	Name of Industry Representative	Designation	Examiner
Amneal Pharmaceuticals Ltd.	Mr.Paresh Trivedi	Assistant Manager, ARL	Practical Examination
Torrent Pharma	Mr. Mihir Jani	Sr. Executive, QC	Practical Examination
Agriculture and Soil Sciences			
Name of Industry	Name of Industry Representative	Designation	Examiner
Green Field Biotech	Mr.Vishal Oza	Owner	Practical Examination
Chlorophyll Biotech	Mr.Jimmesh Patel	Owner	Practical Examination

Overall Placement Data :

1. Textile & Ginning Technology : 100%
2. Pharmaceutical Chemistry : 53%
3. Agriculture & Soil Sciences : 35%
4. Ceramic Technology : 100%

- 10% students of Pharmaceutical Chemistry opted start-up
- 30% students from Agriculture & Soil Sciences chose to become an Agripreneur.

Placement:

After completion of study of first year, 14 students have been placed in industries.

Textile and Ginning Technology					
Sr. No.	Name of Student Placed	Name of Industry	Designation	Job Role	Salary (p.m.)
1	Patel Niravkumar Pankajbhai	Vivekanand Industries, Kadi (Community College)	Fitter	Maintenance of Double roller gin	7000 p. m.
2	Solanki Dilipsinh Kirtisinh		QC Lab Assistant	Testing of different properties of raw cotton and cotton bales	7000 p. m.
3	Jadav Vipulbhai Natubhai		Fitter	Maintenance of Double roller gin	7000 p. m.

4	Prajapati Ketan Jayantibhai		QC Lab Assistant	Testing of different properties of raw cotton and cotton bales	7000 p. m.
5	Thakar Ankitkumar Manubhai	Vivekanand Industries, Kadi (Bachelor of Vocation)	Fitter	Maintenance of Double roller gin	7000 p.m.
6	Vyas Mayurbhai Harikrushna		QC Lab Assistant	Testing of different properties of raw cotton and cotton bales	7000 p. m.

Pharmaceutical Chemistry

Sr. No.	Name of Student Placed	Name of Industry	Designation	Job Role	Salary (p.m.)
1	Zinalbahen Jadavajibhai Nayi	Corel Pharmachem Pvt. Ltd., Kadi	QC Chemist	Raw and Finished Sample Testing	9,000 p.m.
2	Niralee Bharatbhai Patel		QC Chemist	Raw and Finished Sample Testing	9,000 p.m.
3	Kajal Rameshbhai Prajapati		QC Chemist	Raw and Finished Sample Testing	9,000 p.m.
4	Asmitaben Amrutbhai Patel	Kayvee Aeropharma Pvt. Ltd., Kadi	QC Chemist	Raw Material and Finished Formulation Sample Analysis	6,000 p.m.
5	Pratikkumar Vishnubhai Patel		Production Chemist	Routine Production of Formulation	8,000 p.m.

Agriculture and Soil Sciences

Sr. No.	Name of Student Placed	Name of Industry	Designation	Job Role	Salary (p.m.)
1	Patel Niravkumar Kirtibhai	Chlorophyll Biotech, Gandhinagar	Trainee	Green house garming, organic farming certification nutrition and pest management.	8000 p. m.
2	Patel Prashantkumar Amrutbhai		Trainee	Green house garming, organic farming certification nutrition and pest management.	8000 p. m.
3	Nayi Jitendrakumar Vinodbhai		Trainee	Green house garming, organic farming certification nutrition and pest management.	8000 m.

The core part of the syllabus for the aforesaid programs is students' Industrial Visits and Industrial Training Program for the first hand practical knowledge and experience of the actual application of the skill:

1. Industrial Visits of Textile & Ginning Technology students:

The focus during these visits was to acknowledge the students with the different departments of Ginning Industry e.g. Maintenance, Production, Transport, Testing and Spinning; at the same time, different sections like Blow Room, Carding, Draw Frame, Lap Former, Comber, Speed Frame, Ring Frame, Winding and Packing.

Sr.No.	Name of Industry	Date	Department visited	Hour	Purpose of Visit
1	Shivshakti Ginning & Pressing Factory	08/08/2014	Ginning maintenance, production and transportation system	04	To learn about the maintenance schedule of ginning machine, production of bales and linter fibre transportation system.
2	Janki Cotton Industries	09/08/2014	Ginning production and testing	04	To learn about the transportation system used in ginning mill for linter fibres and cotton seeds and testing methods for the subject of fibre moisture, fibre length, fibre micronaire value.
3	Pashupati Cotspin LLP	25/08/2014	All production department like blow room, carding, draw frame, lap former, comber, speed frame, ring frame and winding	05	To learn about the full passage of spinning mill and objects of each department and working principle of each machine.
4	Pashupati Cotspin LLP	31/08/2014	Blow room, Carding, Draw Frame, Lap former	05	To learn about the fibres opening and cleaning system and its efficiency in blow room, sliver forming process in card and draw frame. And auto-leveller system used in finisher draw frame. and lap forming process.
5	Pashupati Cotspin LLP	23/09/2014	Comber, Speed frame and Ring frame	05	To learn about the forming combed sliver by removing short fibre in comber, making intermediate material roving, yarn making process in ring frame.
6	Pashupati Cotspin LLP	08/11/2014	Winding, Packing	03	To learn about methods to store ring yarn in form of bigger package like cones. Also getting knowledge of packing and yarn conditioning methods for ring spun yarn.

7	Vivekanand Industries	08/11/2014	Ginning maintenance, production	04	To learn about maintenance of double roller ginning machinery and transportation system.
8	Vivekanand Industries	08/12/2014	Quality Control, Transportation, Pressing	04	To learn about quality checking parameters and instrument related to cotton fibre, transportation system and working of pneumatic bale pressing machine.
9	L.D College Of Engineering	03/02/2015	Physical testing Laboratory	05	To learn about testing practices of different desirable and essential properties of cotton fibre.
10	Pashupati Cotspin LLP	31/03/2015	Quality Control Laboratory	04	To learn about quality aspects and parameters for cotton yarn, and the sophisticated instruments which used for measuring the quality of various material like fibre, sliver, roving and yarn.
11	V.P.M.P Polytechnic	01/04/2015	Mechanical workshop	04	To learn about various mechanical practices like casting, welding, fitting and shaping etc.
12	D Raja Cotton Pvt. Ltd.	30/04/2015	Production, packing	05	To get knowledge about different type of raw material and its mixing process, machine parts and its utilization in production, and the packing of the products.
13	Sardar Patel Cotton Market Yard	05/05/2015	Purchase	03	To learn about the purchasing method of cotton from market yard and different cotton price variation related with quality.
14	Vivekanand Industries	20/07/2015	Production, maintenance	04	To learn about Production and maintenance schedule, process sequence of ginning department.
15	Vivekanand Industries	21/10/2015	Production, transport, and testing department	05	Basic concept of fibre transportation, related precaution and care, fibre testing methods and its norms and bale pressing machine operating system.
16	D Raja Cotton Pvt. Ltd.	01/12/2015	Quality Control Laboratory	05	To learn about quality aspects and parameters for cotton yarn, and the sophisticated instruments of various material like fibre, sliver, roving and yarn.
17	Pashupati Cotspin LLP.	27/02/2016	All production department like blow room, carding, draw frame, lap former, comber, speed frame, ring frame and winding	05	To learn about the full passage of spinning mill and objects of each department and working principle of each machine.

18	Vivekanand Industries	22/03/2016	Quality Control, Transportation, Pressing	04	To learn about quality checking parameters and instrument related to cotton fibre, transportation system and working of pneumatic bale pressing machine.
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Industrial Training of Textile & Ginning Students:

During industrial training, students have learn skills of testing of cotton properties, cleaning efficiency of blow room and carding, Naps reduction at carding, short fibre removal % at combing in spinning, waste level at blow room and carding and testing of yarn properties.

Industrial Training Details					
Sr. No.	Name of Student	Industry where training carried out	Duration	Objective	Industry Guide
1	Bava Dharmendrapuri Babupuri	Jagdish Cotton Industries, Thol road, Kadi	06/10/2014 to 10/10/2014	To perform Practicals of Ginning Productivity, Ginning %, Maintenance of Seed and loose cotton transportation system, Testing of cotton properties.	Jagdishbhai Patel
2	Bhavsar Brijeshkumar Shaileshbhai				
3	Patel Chiragkumar Dineshbhai				
4	Patel Jaydipchandra Bharatbhai				
5	Patel Jaykumar Maheshbhai				
6	Patel Mayur Sanjaykumar				
7	Patel Rohitkumar Ratilal				
8	Prajapati Amaratkumar Mansukhbhai				
9	Solanki Mahendrasinh Chamansang	Pashupati Cotspin	04/01/2015 to 08/01/2015	To perform practicals of cleaning efficiency of blow room and carding,	Mr. Samiran Das (General Manager-
10	Solanki Mahobatsinh Bharatsinh	LLP, Balasar, Kadi			

11	Solanki Vaktubha Aditsang			Neps reduction at carding, short fiber removal % at combing in spinning, waste level at blow room and carding and Testing of yarn properties	Spinning)
12	Solanki Vipulkumar Bhavubha				
13	Thakor Nareshji Natuji				
14	Thakor Sanjaykumar Babuji				
15	Yogi Vipulkumar Shaileshbhai				
16	Bhavsar Viralkumar Kumarpal				
17	Goswami Dhananjaygiri Vasantgiri				
18	Prajapati Chiragkumar Prahaladbhai	Shivshakti Cotton Industries, Kadi	16/02/2015 to 18/02/2015	To perform practicals of Ginning Productivity, Ginning % , Maintenance of Seed and loose cotton transportation system, Testing of Cotton Properties..	Mr. Pravinbhai Patel (Maintenance Head- Ginning)
19	Prajapati Mehulkumar Jagdishbhai				
20	Raval Jayeshbhai Babubhai				
21	Raval Maheshbhai Kalabhai				
22	Raval Vishnukumar Kalubhai				
23	Sathavara Himanshukumar Dashrathbhai				
24	Shah Achal Rajmal				
25	Solanki Bharatbhai Narsinhbhai				
26	Solanki Harichandrasinh Vanrajsinh				
27	Jadav Vipulbhai Natubhai	Vivekanand Industries, Kadi	09/03/2015 to 12/03/2015	To perform Practical of Ginning Productivity, Ginning % , Maintenance of Seed and loose cotton transportation system, Testing of cotton properties.	Mr. Nirav B. Patel (Head- Export Division)
28	Patel Niravkumar Pankajbhai				
29	Prajapati Ketan Jayantibhai				
30	Solanki Dilipsinh Kirtisinh				
31	Thakor Chamanji Babuji				
32	Thakor Surajkumar Manuji				

33	Sadhu Jigarkumar Mahendrabhai				
34	Parmar Rahulsinh Bhikhusinh				
35	Jadav Vipulbhai Natubhai	Jagdish Cotton Industries, Thol road	07/12/2015 to 12/12/2015	To perform Practicals of Ginning Productivity, Ginning %, Maintenance of Seed and loose	Jagdishbhai Patel
36	Raval Maheshbhai Kalabhai				
37	Solanki Mahobatsinh Bharatsinh				
38	Solanki Vipulkumar Bhavubha				
39	Thakor Sanjaykumar Babuji				

Industrial training of Agriculture & Soil Sciences students:

Agriculture sector plays a vital role in India's economy and in Gujarat North Gujarat is a region of arid to semi arid climate with average rainfall of 735 mm. The major crops of north Gujarat are Isabgol, wheat, paddy, potatoes, and cumin fenugreek.

N o.	Industries linked	No. of students	Skill Adopted	Duration of working
1	GUJARAT HYBRID SEEDS, DEHGAM.	: 32	Cultivation of different varieties of castor bean and its hybrid seeds production.	7 hrs
2	SAGAR LAXMI SEEDS, NANDASAN	35	Cultivation and commercial production of hybrid seeds of castor bean, wheat, fennel.	7 hrs
3	GUJARAT HYBRID SEEDS PROCESSING UNIT, KADI.	30	Processing of sorghum seeds and its packaging for commercial production.	6 hrs
4	GREENFIELD BIOTECH. ADALAJ, GANDHINAGAR	33	Basics of Plant tissue culture, commercial production of banana plants and Green house technology.	6 hrs
5	IFFCO PLANT, KALOL	15	Production of chemical fertilizer (urea) and bio-fertilizer and its application to various crops.	6 hrs
6	PRERNA BIOSEEDS, HIMMATNAGAR.	54students of semester III & I	Cleaning , grading and packaging of seeds	5 hrs

7	DANTIWADA AGRICULTURE UNIVERSITY.	54	Regional Research Station of Barley where different hybrids of Barley are formed. Basics of plant breeding were taught to the students.	6 hrs
8	GUJCO MASOL, NAROL, AHMEDABAD	PATEL PALAK	Hybrid Seeds Production and	10 days
		PATEL NITIN R.		10 days
		PATEL PRIYANK		10 days
		PATEL VASANT		10 days
		PATEL ANANDPRAKASH		10 days
9	VIKRAM SEEDS, CHOLIA, BAYAD	PATEL AVANI	Hybrid Seeds Production and its grading and packaging.	15 days
		PATEL DIVYA		15 days
10	CHLOROPHYLL BIOTECH GANDHINAGAR	PATEL NIRAV	Organic farming and its advantages in greenhouse farming.	30 days
		PATEL PRASHANT		30 days
		NAYI JITENDRA V		30 days
11	GREENFIELD BIOTECH, ADALAJ. GANDHINAGAR.	VYAS MEHUL	Raising of <i>Invitro</i> banana plants and its greenhouse cultivation	15 days
12	ANAND AGRICULTURE UNIVERSITY	23 boys+ 19 girls of Sem IV & II	Organic farming	5 days

Industrial Visits of Pharmaceutical Chemistry students:

Sr. No.	Name of Industry	Total No. of Visit	Technical Aspects of Visit
1	Corel Pharma Chem, Kadi	3	Production and QA ,QC Work
2	Kayvee aeropharm Pvt.Ltd., Kadi	1	Production and QA ,QC Work
3	Gayatri Pharma, Ahmedabad	1	Ayurvedik formulation and testing

4	Tuton Pharmaceuticals, Ahmedabad	1	Production of all the dosage form and instrument used for analysis
5	Zydus cadila health care, Ahmedabad	1	Production of all the dosage form and instrument used for analysis and documentation in industry
6	Abaris health care, Rajpur, kadi	1	Production of LVP and QC TESTING

Industrial Trainings of Pharmaceutical Chemistry students:

Sr. No.	Name of Industry	Total No. of Days	Technical Aspects of Training	No. of Students benefitted
1	Corel Pharma Chem, Kadi	11	Practical purpose	11
		3	HPLC,GC Instrument operation	21
2	Kayvee Aeropharm Pvt. Ltd., Kadi	11	Practical purpose	11

Industrial Visits of Ceramic Technology students:

Sr. No.	Name of Industry	Total No. of Visit	Technical Aspects of Visit
1	CERA Sanitary ware Ltd.	3	Raw Material, Research & Development, Slip House & Mill House, Molding and Casting, Green House, Quality Control and ETP (Effluent Treatment Plant)

Industrial Trainings of Ceramic Technology students:

Sr. No.	Name of Industry	Total No. of Days	Technical Aspects of Training	No. of Students benefitted
1	CERA Sanitary ware Ltd.	2	Research & Development	29
		1	Raw Material	
		2	Slip House & Mill House	
		2	Moulding	
		1	Casting	
		2	Green House	
		1	Quality Control	
		1	ETP (Effluent Treatment Plant)	

List of Industry – Academia MOUs

1	Pashupati Agro Green Industries, Kadi
2	Corel Pharma Chem.Ahmedabad
3	Shree Ganesh Oil Mill and Ginning Factory, Kadi
4	D. Raja Cotton Pvt. Ltd., Kadi,
5	Pashupati Cotspin LLP for establishing an Institute - Industry linkage, Kadi
6	Janki Industries, Kadi
7	Shiv Shakti Ginning & Pressing Factory
8	Jagdish Cotton Industries, Kadi
9	Tirupati (Guj) Cot Spin Limited, Chhatral
10	Tirupati Balaji Cot Fab Pvt.Ltd, Chhatral
11	Pink Vision Agro.Tech Gandhinagar
12	Mr.Ashutosh Mhaskar, Director, Designer, Writer
13	Mr.Hardik Thakkar , Exeucitive Producer, Mumbai.
14	Greenfield Biotech, Adalaj, Gandhinagar.
15	Gujarat Hybrid Seeds, Ahmedabad
16	Sejasmi Industries (India) Pvt.Ltd.
17	Kayvee Aeropharma Pvt.Ltd. Kadi
18	West Coast Pharmaceuticals Ltd., Ahmedabad
19	Lincoln Pharmaceuticals Ltd., Khatraj
20	Krishi Vigyan Kendra, Ganpat Vidyanagar ,Kherva
21	National Engineering Works, Ahmedabad
22	President (Works), Cera Sanitary Ware Ltd.Kadi
23	Vice President CP Fittings, Cera Sanitary Ware Ltd.Kadi
24	Pranam HVAC Engineering Pvt.Ltd., Ahmedabad.
25	Somany Ceramics Ltd.
26	Hitachi Home & Life Solutions (India) Limited, Kadi
27	Pranam Technologies , Ahmedabad
28	Bahhauddin Science College, Junagadh.
29	Shri U.P.Arts,Smt.M.G.Panchal Science and Shri V.L.Shah Commerce College, Pilvai
30	M.G.Science Institue , Dadasaheb Mavalnker Camus, Navrangpura, Ahmedabad -9
31	V.P. & R.P.T.P.Science College, Vallabh Vidyanagar-388120
32	Sheth M.N.Science College, Patan (N.G.) 384265
33	Green Cloud Soft PVT Ltd, Gandhinagar
34	Peach Technovations Private Limited,Gandhinagar
35	Hotel Planet, Kalol
36	Hotel Krsna Lila –Khoda, Ahmedabad
37	Panoramic Holidays Limited, Ahmedabad
38	Saffrony Holiday Resort (Saffrony Club Pvt.Ltd.), Mehsana
39	Labdhi Business Solutions, Ahmedabad
40	Pcube Softech, Ahmedabad
41	Yudiz Solutions Pvt.Ltd., Ahmedabad
42	Arman Technology, Ahmedabad