

**DEPARTMENT OF
INDUSTRIAL CHEMISTRY**

Appraisal Report for NAAC Review

Presented By:

**Dr.Merlin Thomas
Professor & Head**

- ❖ **Established in 1990** in sister institute V.P. Science College
- ❖ **Transferred to ISTAR in 1999**

COURSES CONDUCTED

**M.Sc. Industrial
Chemistry
(4 Semesters)**

Ph. D. Industrial Chemistry

Full time, 6 Semesters
Part time, 8 Semesters

**Certificate course in
QA in Pharma Industry
(3 Months)**

TEACHING STAFF



Dr. Merlin Thomas
Prof. & Head
Ph.D Chem Engg
23 yrs experience



Dr. Jigar Patel
Asst. Prof
Ph.D Ind. Chem
15 yrs experience



Dr. Rohit Dave
Asst. Prof
Ph.D Chemistry
16 yrs experience



Dr. Nirmal Patel
Asst. Prof
Ph.D Ind. Chem.
13 yrs experience



Mr. Ankit Patel
Trainee
M.Sc. Ind. Chem
4 months experience

SUPPORTING STAFF



Mrs. P.B. Thakker
Dept. Clerk
19 yrs experience



Mr. M.M. Patel
Lab Asst
11 yrs experience



Mr. Pinakin Patel
Lab Asst
8 yrs experience



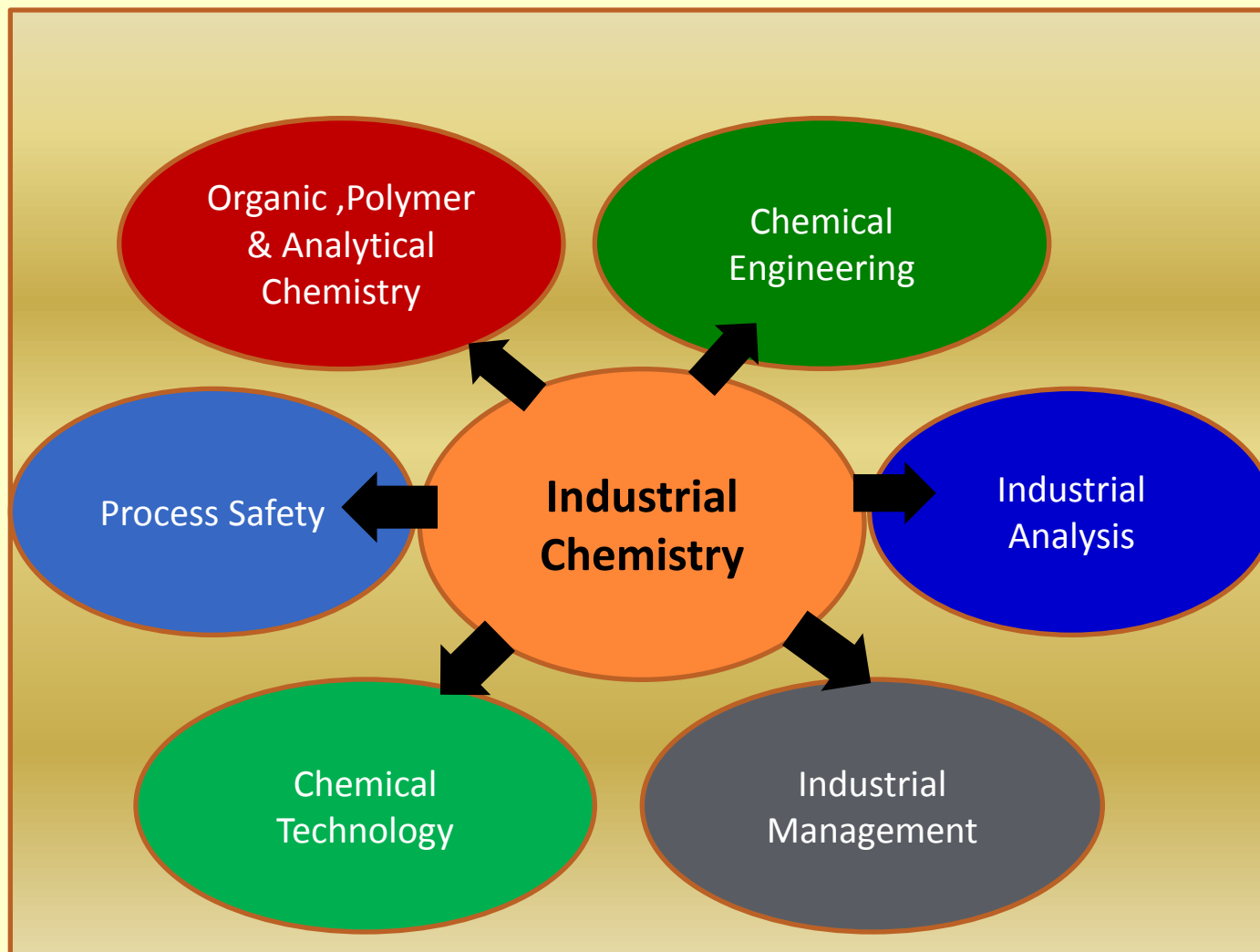
Mr. R.A. Rathod
Peon
23 yrs experience



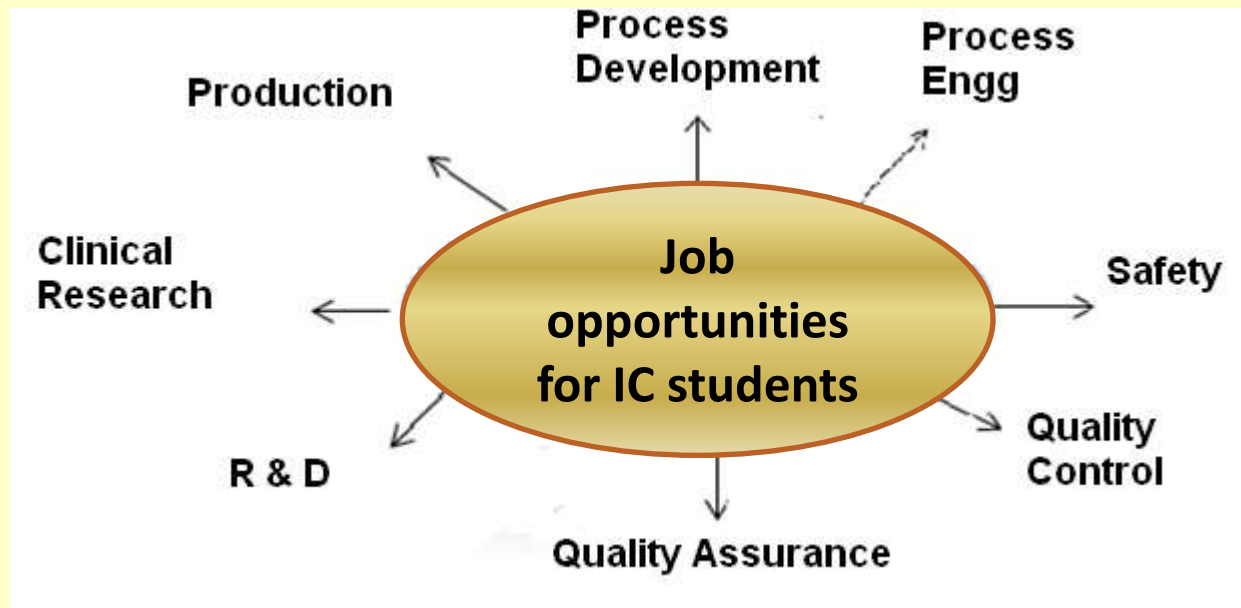
Mr. S.A. Patel
Peon
4 yrs experience

SALIENT FEATURES

➤ Diversity of Curriculum



SALIENT FEATURES continued...



Six Weeks Industrial Training (during summer vacation)

Add on courses...

Personality Development Programme : 12 hours per semester

3 days certificate course of Analytical Instruments in SICART

HPLC, FTIR, GC-GCMS

1. Curriculum Planning and Implementation

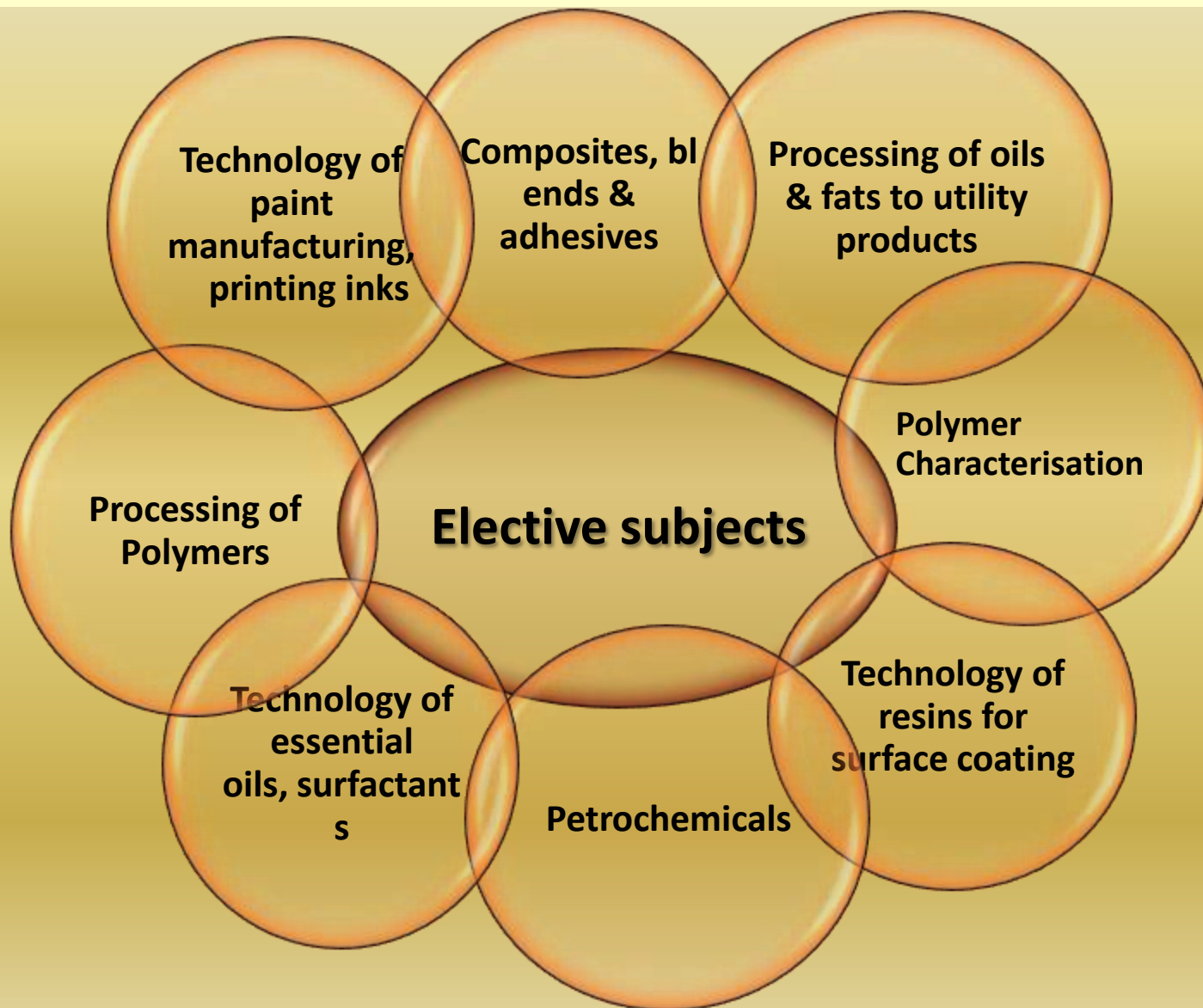
- In consultation with senior faculty members, Alumni and Industry Experts
- Board of Studies of Industrial Chemistry, S. P. University

Name of Faculty	Membership in University / Professional Bodies
Dr. Merlin Thomas	Senate Member, S.P. University Member-Board of Studies, S.P. University Life Member- Indian Institute of Chemical Engineers
Dr. Jigar Patel	Member-Board of Studies, S. P. University
Dr. Rohit Dave	Member-Board of Studies, S.P. University

2. Curriculum revision/enrichment.....Updation in every 3 years

- Semester system introduced in 2009
- CBCS in 2010
- Revised in 2012
- Next Revision in June 2015

CURRICULAR ASPECTS Continue....



To introduce 2 subjects from Bio Science Board of S. P. University from 2015

4. Feed back from

- Students
- Parents during open house
- Alumni

5. Pattern of examination assessment

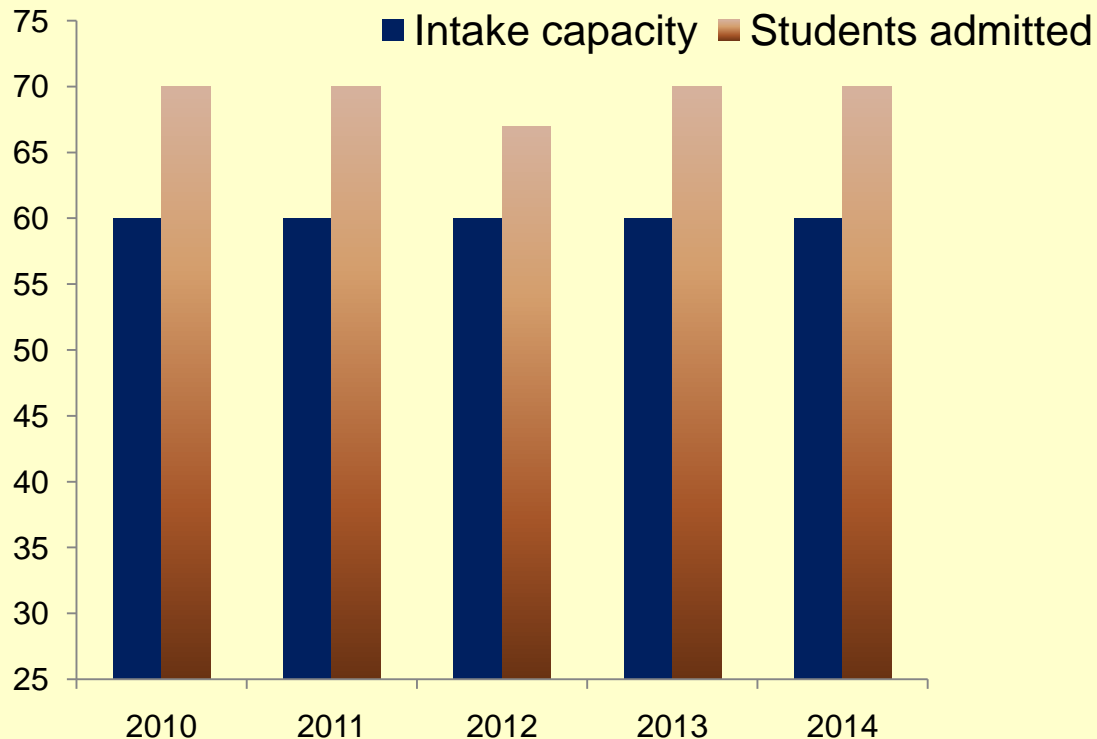
Sem	Internal Marks (Quiz, Seminars, Assignments, Internal Test)	External Marks	Viva-voce	Total
I	30 x 6 Papers =180	70 x 6 Papers = 420	50	650
II	30 x 6 Papers =180	70 x 6 Papers = 420	50	650
III	30 x 6 Papers =180	70 x 6 Papers = 420	50	650
IV	30 x 6 Papers = 180	70 x 6 Papers = 420	50	650

Teaching, Learning & Evaluation



1. Student Enrolment

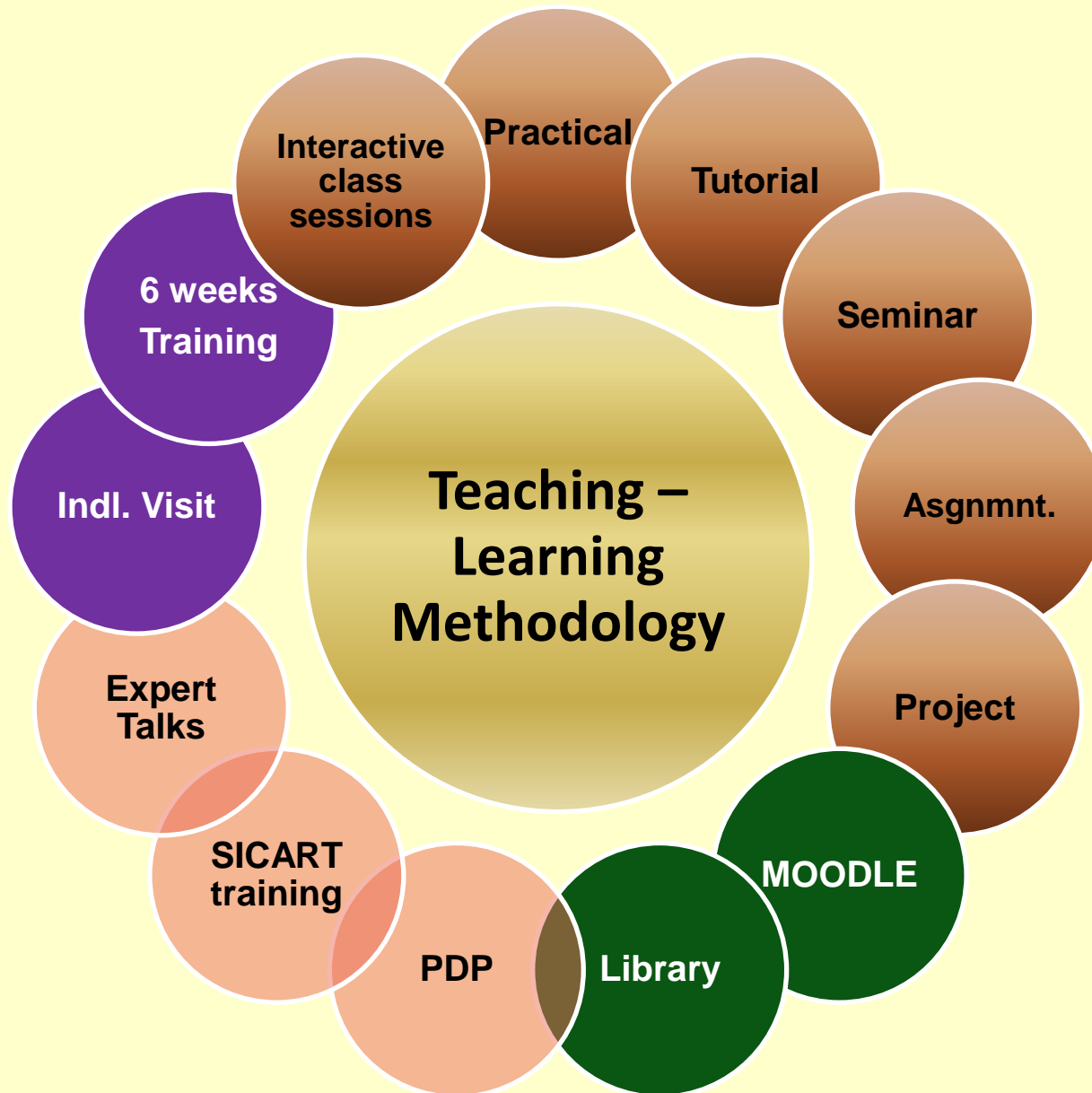
- Based on merit
- Guidelines of S.P. University



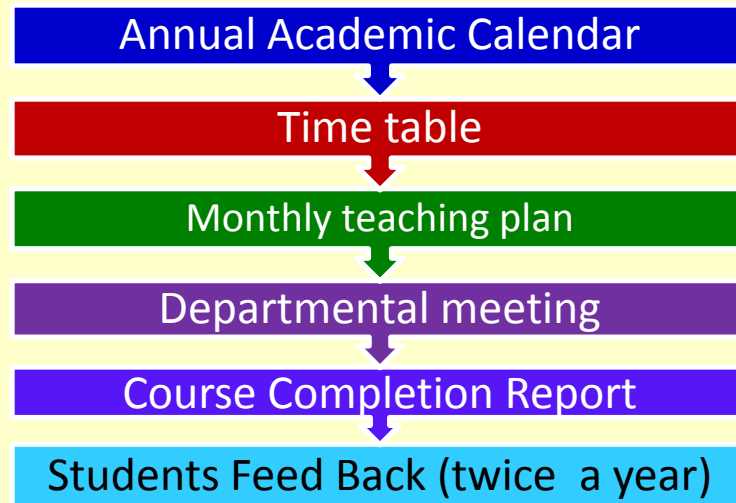
Year	Demand Ratio
2010-11	1.17
2011-12	1.08
2012-13	1.06
2013-14	1.3
2014-15	1.23

Teacher-student ratio :1 :27

2. Teaching-Learning Methodology

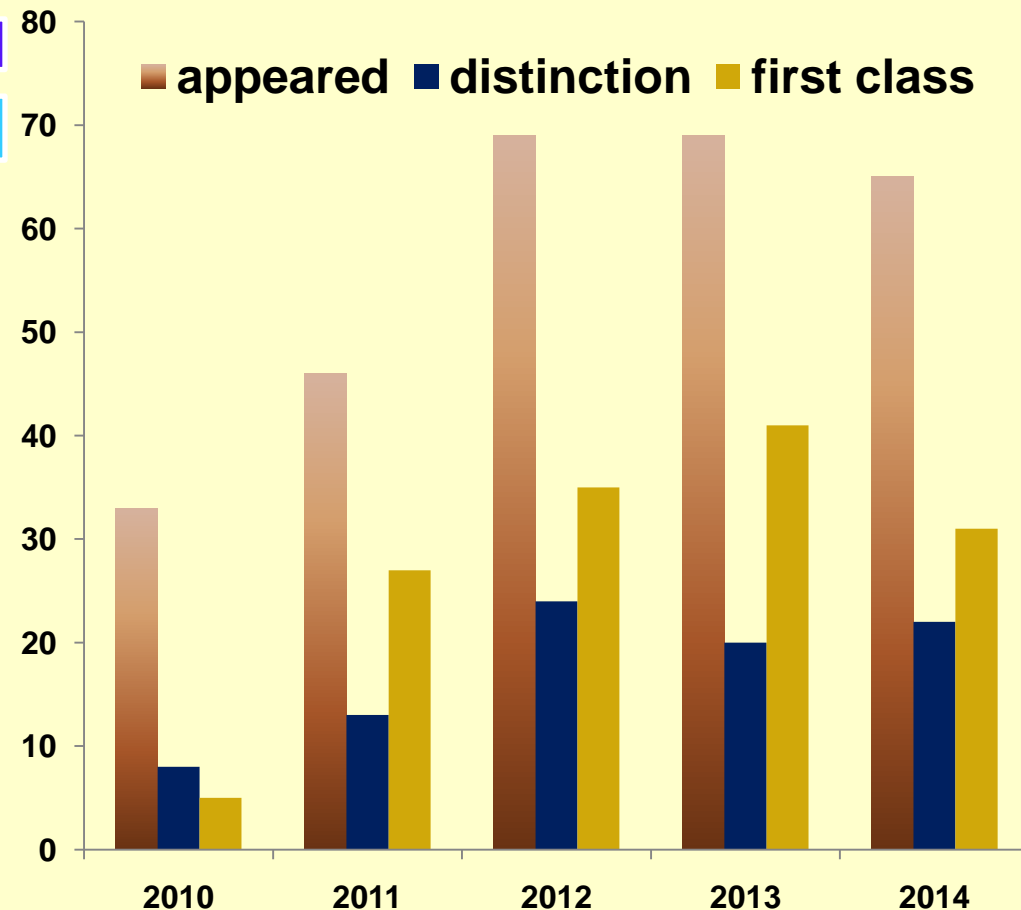


3. Evaluation of Teaching progress



4. University exam result

100 % result in all the years



5. Teacher Quality

- 4 faculty having Ph.D degree and 1 pursuing Ph.D.
- Highly experienced Staff

6. Faculty as Resource Person

Name of Staff	No. of Events
Merlin Thomas	03

7. Faculty Development Programmes

Name of Staff	No. of seminars/conferences /workshops attended
Merlin Thomas	09
Jigar Patel	05
Rohit Dave	06
Nirmal Patel	06

Research , Consultancy and Extension



1. Research Guides

Sr. No	Name of staff	Discipline	No. of current research students
1	Merlin Thomas	Industrial Chemistry	01
2	Jigar Patel	Industrial Chemistry	02
3	Nirmal Patel	Industrial Chemistry Pharmaceutical Chemistry Chemistry	02

2. Resource Mobilization

Amount in Rs.	
Completed Research Projects	Ongoing Research Projects
12,70,000	9,45,000

3. Research Facility

- Research lab
- SICART support for analysis & testing

4. Patents Rohit H. Dave- 02

5. Research Papers(2009-14)

Papers Published	Citations	Range of h index	Range of i10 index
36	269	2-5	1-3

6. MoU with other Institutions

- SVNIT, Surat
- Lupin Ltd.

Process for preparation of
Magnesia- International Patents

Domain Areas :

- Adsorption
- Polymer Synthesis & Characterization
- Value added products from renewable resources
- Controlled drug release

Events Organized

- Expert Talk
- State Level Quiz Competition
- National Seminar
- Scholarship

7. Seminars/ Workshops Organized



**National Seminar on Best Practices
in Pharma Industries, 10th Aug, 2013
(282 participants) Sponsored by MISA**



**Recent trends in safety in chemical
industries, 11th October, 2013
(173 Participants)**



**Chem Quiz, 2014 ,
11th Jan, 14 (60 participants)
Sponsored by PI Industries**



**Live Life King Size, 24th Dec, 2011
(75 participants) Sponsored by
Lupin Ltd**

Infrastructure and Learning Resources

Class Rooms & Capacity

One (110 capacity)
LCD enabled



Departmental Library



General Facilities

Faculty Cabin :03

Desktop with net :07

Laptop :01

**e-Learning
Resources:**

istarmoodle.co.in

87 books

Training Reports

**Issue-Return
Register**

Laboratories

Laboratories : 04

- Unit Operations/Synthesis Lab
- Analysis Lab
- Heat Transfer Lab
- Research & Analytical Lab



Important Laboratory Equipments

UV Spectrometer

Lab Sonicator

KF Titrator

Extractor

Free Convection

Vacuum Oven

Stefan Boltzmann

Lab Centrifuge

Heat Exchanger

Force Convection

Agitated Vessel

Critical Radius

Composite wall

STUDENT SUPPORT & PROGRESSION



1. Student Mentoring----- Counseling, Open house

2. Student Support

- Add on / Enrichment Courses
- Grooming for Campus Interviews
- Language laboratory
- In-plant Training
- Campus Interview
- Expert Talks
- Industrial Visits

3. Student Progression

Students Passed (2009-2014)	Campus Placement	M.Sc to Ph.D	GATE/NET	M.Sc to M.S/MBA	B.Ed	Others
286	256	17	02	03	02	06

Progression from M.Sc. to Ph.D.



Progression from M.Sc. to MS/MBA

Sr. No.	Year	Student's Name	Institute/ University
1	2009	Bhushan Choubisa	SVNIT
2	2009	Gopal Chavda	SVNIT
3	2010	Dhaval Gajjar	SPU
4	2010	Jay Patel	SPU
5	2011	Rinkesh Patel	SPU
6	2011	Sandip Shivhare	SPU
7	2012	Dijit Patel	Charusat
8	2012	Chirag Shukla	GU
9	2012	Vishal Patel	Charusat
10	2012	Rajarshi Patel	GU
11	2012	Mandar Karve	SPU
12	2012	Tirth Panchal	SPU
13	2012	Amit Barot	SPU
14	2012	Mehul Savaliya	SVNIT
15	2013	Ankit Patel	SPU
16	2013	Chirag Patel	SPU
17	2013	Nisarg Prajapati	SPU

Sr. No	Year	Student's Name	Institute/ University
1	2012	Mr.Jatin Raval	Alberto Univ,Canada
2	2010	Mr. Vipul Patel	West London College, UK
3	2009	Mr.Krutik Patel	Queens Univ., Canada

GATE/NET

Sr. No	Year	Student's Name	Exam Cleared
1	2013	Viraj Bhanwadia	GATE
2	2013	Romil Mehta	NET

Students Participation in Co-curricular Activities

M.Sc. Students

Name of the student	Event	Year
Ms.Tulsi Thaker	Presented a paper in Indian Water Congress	Feb 2014
9 students	Attended National Symposium on Green Chemistry ,GCET	Feb 2013
25 students	National Symposium on Membrane Separation in Chemical and Allied Process Industries ,GCET	Oct 2012
30 students	State Level workshop on Safety in Process Industries ,IIChE, Nadiad Centre	Feb 2011

Students Participation in Co-curricular Activities**Ph.D. Students**

Name of the student	Event	Year
Mr.Tirth Panchal	Presented paper in International Conference on Lubricating Grease Conference	February,2014
Mr.Tirth Panchal Mr.D.D.Chauhan Mr.Ankit Patel	Presented paper in National Seminar on Interdisciplinary studies in Chemical Science: Defence & Biomedical applications	January 2014
Mr.Tirth Panchal Mr.D.D.Chauhan Mr.Ankit Patel	Presented paper in National Conference on Green Chemistry	September 2013
Mr.Tirth Panchal Mr.Ankit Patel	National Seminar on Recent Advances in Chemical Sciences	August 2013
Mr.Mandar Karve	Presented paper in GUJCOST Seminar-Science Manthan	Jan 2014
	attended National Workshop on Chromatographic Techniques in	February,2014

19 Expert Talk (June 2009- May 2014)



2009-10

Mr.Sridar Koparkar,Zyduz Cadila

2010-11

Mr.Daxesh Mankad,Loxim,Padra
Mr.Umesh Gondaliya,Riddhi SiddhiChemicals
Mr.M.Khokhawala,Alembic,Vadodara
Mr.Keyur Thaker,Sun Pharma,Vadodara



2011-12

Dr.Y.B.Chauhan, Bayer-Noida

Mr.Daxesh Mankad,Loxim,Padra

Mr.Brahmbhatt,Open University



2012-13

Mr.D.M.Joshi,Lupin Ltd.,Ankleshwar
Mr.Jayen Barochia,SABIC,S.Arabia
Dr.Brijesh Parikh,Rasayan Labs
Mr.Manoj Mavani,Bhumi Electrochem
Dr.Prashant Pandya,Asian Paints
Dr.Vashist Bhatt,NVPAS



2013-14

Ms.Janki Pandya,JCI,Lunawala

Mr.Bhushan Choubisa,SVNIT

Mr.D.D.Chauhan,Isagro Agrochem

Mr.Munaf Damani,Lupin Ltd.,Ankleshwar

Team from Arista Life Science,Kalol



16 Industrial Visits (June 2009- May 2014)



2009-10

Ion Exchange India, Ankleshwar
Rallis, Ankleshwar

2010-11

Arti, Vapi
IPCA, Silvassa

2011-12

SPRERI
Anchor Baewoo, Bhuj
Parle, Bhuj

2012-13

Arti Industries, Vapi
IPCA, Silvassa
Lupin, Ankleshwar
Lupin, Dabhasa
SPRERI

2013-14

Lupin, Bhopal
Atul, Valsad
PI Industries, Panoli
SPRERI



Open House (2012-13 & 2013-14)



Interaction with parents

Regularity & Performance of students

3. Alumni Activity (MISA)

MISA -M. Sc. Industrial chemistry students association having 350 members

- Scholarship
- Expert talks
- Financial and technical support for seminars and workshops
- Placement and training
- Student Projects
- Annual Alumni Meet



Contribution by Alumni

MISA Scholarship of Rs. 20,000 each to two students

Sponsoring of 150 kits for National Seminar on 10th August, 2013

Donation of a pH meter & oven and Calibration of the various analysis instruments free of cost by Dr. Brijesh Parikh

14 expert talks by distinguished Alumni

Contribution by Industries



Lupin Scholarship of Rs. 30,000 to topper of first year

Chemicals worth Rs. 1,00,000 was donated by M/S Du-Pont, Savli in August 2013

PI Industries, Panoli sponsored chemQuiz-2014, a state level quiz contest held on 11th January, 2014

Expert Talks

Lupin Scholarship of Rs. 30,000 to Topper



MISA Scholarship of Rs. 20,000 each to TWO students



5. Placement Record

100 % placement during last 10 years



Unimark Remedies Ltd.



Placement Details (2009-14)



Name of the company	Students selected
Amoli Organics	01
Arista Life Science,Kalol	03
Asian Paints,Ankleshwar	03
Asian Paints,Saregam	04
Atul Ltd.,Valsad	13
Aventis Pharma	01
Angel Industries	01
Base Metal Ltd.,Nandesari	01
Bee Pee Coating,V.U.Nagar	01
Birla Cellulose,Ankleshwar	01
Cadila Pharma,Ankleshwar	03
Crystal Quinone,Ahmedabad	03
Deepak Nitrite Ltd	01
Essar Power,Jamnagar	01
Farmson Pharma	01
Gharda Chemicals,Panoli	05
GIL,Panoli	01
Hari Orgachem,Nandesari	03
Hindustan Zinc,Udaipur	01
Jubilant Organosis,Vadodara	02

Name of the company	Students selected
Lambda Therapeutics,A,bad	01
Lonsen Kiri Chemicals,Savli	01
Lupin Ltd. Ankleshwar	39
Lupin Ltd. Dabhasa	21
Lupin Ltd. Mandideep	15
Loxim Industries Ltd	01
Mascot Ltd.,Ahmedabad	02
Metroyil Industries	01
Parswanath Dyes,A'bad	06
Indl Solv. & Chemicals Ltd	07
KGN Industries	02
Rallis Ltd.,Ankleshwar	45
Ranbaxy Labs,Dewas	08
Reliance Ltd.,Jamnagar	32
Solvay Ltd.,Panoli	03
Tonira Pharma	07
Torrent Pharma, Kadi	10
Unichem,Indore	03
UPL,Ankleshwar	05
Zydus Cadila	04

CAMPUS INTERVIEW



Students Participation in Extra Curricular Activities

Uttarayan



X'mas & New Year



Dusshera



Uttarayan



Janmashtami



1. Departmental Responsibility ---- Well defined duty for all staff members

Merlin Thomas

General Administration
Campus Interview
Time table
Record Maintenance
Counseling
Admission

Jigar Patel

Students Project
Training
Counseling
Admission
Internal Exam

Rohit Dave

Campus Interview
Counseling
Expert Talks
Indl. Visits
PDP

Nirmal Patel

Expert Talks
Training
Counseling
Extra Curricular
Activities

Ankit Patel

Attendance Record
Internal Examination

Minesh Patel

Lab. Maintenance
Dept. Library

Pinakin Patel

Lab Maintenance
Admission

Parul Thakker

Lab. Maintenance
Purchase

2. Departmental Representation in Governance and Management of Institute



Sr.	Name of Faculty Member	Position
1	Dr. Merlin Thomas	<ul style="list-style-type: none">•Co-ordinator-IQAC•Convener -NAAC Steering committee• Chairperson- Admission Committee• Member- Women cell• Member- Research committee
2	Dr. Jigar V. Patel	<ul style="list-style-type: none">• Member- NAAC Steering committee• Member-Library committee• Member- AAA/UGC committee
3	Dr. Rohit H. Dave	<ul style="list-style-type: none">• Co-ordinator -PDP
4	Dr. Nirmal K. Patel	<ul style="list-style-type: none">• Co-ordinator -NSS

SWOC ANALYSIS & FUTURE PLANS



STRENGTHS

- Dedicated faculty with expertise in diverse disciplines
- Placement in Production, R&D, QA-QC departments of all types of chemical industries
- Reputation as a center of excellence among major chemical industries in and around Gujarat
- Active Alumni association

WEAKNESSES

Lack of structured Consultancy

OPPORTUNITIES

- Establishment of more liaison with industries
- Adaptation of new technologies

CHALLENGES

Development of soft skills in students

FUTURE PLANS

- Certificate course in testing of petroleum products

Celebrating 25 Yrs

