

Contents

D. Departmental Profile

Department of Biochemistry	199
Department of Botany	219
Department of Chemistry	235
Department of English	272
Department of Geology	277
Department of Mathematics	297
Department of Microbiology	302
Department of Physical Education	315
Department of Physics	323
Department of Statistics	338
Department of Zoology	348

Departmental Profile

Department of Biochemistry

1. **Name of the Department:** Biochemistry
2. **Year of Establishment:** 1991
3. **Names of Programmes / Courses offered**
 - B. Sc. Biochemistry
 - Certificate in Vocational Biotechnology

4. **Names of Interdisciplinary courses and the departments/units involved:**

The Vocational Biotechnology course has students from all disciplines of Life science of the institute namely Botany, Microbiology & Zoology departments.

The Vocational Biotechnology course is solely managed by Biochemistry Department with the help of Ad- Hoc staff members appointed for that purpose

5. **Annual/ Semester/Choice based credit system (programme wise):**

The department has been following the Annual University pattern from the year of establishment, that is from 1991. Later on, the semester system was introduced as per the University guidelines under the CBCS structure from 2011 onwards

6. **Participation of the department in the courses offered by other departments:**

Faculty members attended one day state level workshop conducted by Statistics department of M G Science Institute on Data Analysis Using MS-Excel sponsored by DBT on 8 March 2010

The Laboratory technician cleared CCC exam in computer language conducted by Government of Gujarat & has participated in a state level seminar on “capacity building for Laboratory & administrative staff: from instruments to instructions in March 2012

7. **Courses in collaboration with other universities, industries, foreign institutions, etc.**

None

8. **Details of courses/programmes discontinued (if any) with reasons:** No

9. **Number of Teaching posts:**

	Sanctioned	Filled
Professors	0	0
Associate Professors	5	4
Asst. Professors	0	0
Ad-hoc staff	2	2

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. Etc.,)

Name	Qualification	Designation	Specialization	Exp/ Years	No. of Ph. D. students guided
Dr. H.V. Pa	M Sc , Ph D,	Associate Professor & Head of the Department	Cytogenetics & Endocrinology	23	Applied for Guide ship
Ms. Diti T Chokshi	M .Sc	Associate Professor	Biochemistry, Nutrition & Dietetics	23	-
Ms. S V Jha	M Sc, M.Tech	Associate Professor	Biochemistry/ Biotechnology	22	-
Dr. Vijaya Nadagouda	M Sc,, PhD	Associate Professor	Fungal biotechnology	22	Applied for Guide ship
Ms. Prerna Patel	M Sc,, PhD(continued)	Ad-hoc faculty	Bio-Medical Technology	10	-
Ms. Pinal Patel	M .Sc PhD(continued)	Ad-hoc faculty	Food Biotechnology	7	-

11. List of senior visiting faculty:

In the fulfillment of the Vocational Biotechnology course, several experts from different organization are invited to engage lectures:

1. Dr. Shivangi Mathur, GSBTM, Gandhinagar
2. Ms. Toral Shah, Scientist, Zydus Cadila, Ahmedabad

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

Till 2013 all the classes were handled by the permanent faculty of biochemistry department with great difficulty. However, in this academic session, two ad-hoc staff members of Vocational Biotechnology programme, Ms. Prerna Patel & Ms. Pinal Patel were given the responsibility of sharing work load with permanent faculty members of the department during laboratory sessions as the teacher-student ratio was highly skewed

13. Student -Teacher Ratio (programme wise):

B.Sc. Biochemistry Program:

Year	Student:Teacher
2011 – 12	45:1
2012 - 13	45:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

There is one Laboratory Assistant, one Laboratory peon.

15. Qualifications of teaching faculty with D.Sc/ D.Litt/ Ph.D/ MPhil/PG.:

	Name	Qualification
1	H V Pandya	MSc. & PhD
2	Diti Chokshi	MSc.
3	Sunita Jha	MSc. & MTech.
4	Vijaya Nadagouda	MSc. & Ph.D.
5	Ms. Purna Patel	MSc.
6	Ms. Pinal Patel	MSc.

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

National level: Dr. Vijaya Nadagouda has two projects of national level funded by the UGC

State level: Dr.H.V.Pandya has one project of state level funded by GUJCOST.

17. Departmental projects funded by DST, DST-FIST; UGC, DBT, ICSSR, etc. and total grants received:

- We receive funding for departmental development under DBT Star College scheme
- Details of research projects of staff members:

Sr. No.	Name	Title of Project	Funded by	Amount received	Completed	Date of Starting
1	Dr.H.V.Pandya	Bioremediation of Water hyacinths Using selected fungi	GUJCOST	25,000	2012	March, 2011
2.	Dr. Vijaya Nadagouda	Screening Of Antimicrobial Principals From Local Mushrooms	UGC (Minor research project)	55,000	2009	27/12/06
3	Dr. Vijaya Nadagouda	Degradation of textile dyes with the help of selected macrofungi	UGC (Major research project)	467,000	2013	16/2/2009

18. Research Centre /facility recognized by the University:

Biotechnology Laboratory is equipped with basic infrastructure needed for preliminary research purpose, which is utilized by faculty members from Biochemistry, Microbiology & Chemistry department for their research work.

Faculty members benefited for research from the department of Biochemistry are Dr H V Pandya, Dr. Vijaya Nadagouda, Dr. M D Shukla from Microbiology Department & Dr. Jatin Parikh from Chemistry Department.

Apart from the faculty members of different departments of the institute, the facilities have also been helpful to many M.Sc. students of Biochemistry Department, Gujarat

University, in pursuing their M.Sc. dissertation projects

19. Publication: Details given at the end of the document.

20. Areas of consultancy and income generated: None

21. Faculty as members in

a) **National committees** b) **International Committees** c) **Editorial Boards**

Dr. H.V.Pandya

- Chairman of the Board of Studies (BioChemistry), Gujarat University
- Life member of Society of Biological Chemist (INDIA)

Prof. Diti Chokshi:

Sr.No	Organization	Type of membership	Position	Date of joining
1	National Institution of Nutrition(NIN)	Life-Member	Member	June, 2010
2	Women's International League for peace & Freedom(WILPF)	Life-Member	Member	November, 2008
3	Indian Society for Community Education(ISCE)	Life-Member	Member	April,2010
4	CERC(Consumer Education)	Ordinary	Member	Oct-2009
5	Alumni Association, Biochemistry Dept, M.S. University, Vadodara	Life Member	Member	2006
6	MAA-M.G. Science Alumni Association	Life Member	Member	2006
7	Bird Conservation Society, Gujarat	Life Member	Member	2011
8	Red Ribbon Club(AIDS)	Member	Member	2009
9	Indian Science Congress	Member	Member	2011

Prof. S V Jha

Sr.No.	Organization	Type of membership	Position	Date of joining
1	Women's International League for peace & Freedom(WILPF)	Life-Member	Member	2008 Onwards
2	Alumni Association M. G. Science Institute	Life Member	Member	2006 Onwards
3	Bird Conservation Society, Gujarat	Life Member	Member	2011 Onwards
4	Red Ribbon Club(AIDS)	Member	Member	2009

Dr. Vijaya Nadagouda:

Sr.No.	Organization	Type of membership	Position
1	Bird Conservation Society, Gujarat	Life Member	Member
2	Youth hostel association of India	Life Member	Member
3	Alumni Association, Biochemistry Dept, M.S. University, Baroda	Life Member	Member
4	Alumni Association M.G. science Institute, Ahmedabad	Life Member	Member
5	Alumni Association C U science college, Ahmedabad	Life Member	Member

Three other faculty members from the department of Biochemistry- Ms. Diti Chokshi, Ms. S.V. Jha & Dr. Vijaya Nadagouda have contributed to the syllabus preparation/modifications for Gujarat University

22. Student projects

a) **Percentage of students who have done in-house projects including inter-departmental/programme:**

- 40-50 students from the department have done in-house projects on composting under the guidance of Dr. H V Pandya, and Dr. Vijaya Nadagouda & Dr. M D Shukla from Microbiology Department.
- Students are trained to collect data regarding anthropometry & body composition, physical activity & food intake under the guidance of Ms. Purna Patel & Ms. Pinal Patel, Ad-hoc Faculty, Vocational Biotechnology course.
- These students' projects are funded from the research projects of the faculty. The purpose is to train & orient these students towards research work.
- Thus, around 10 % students carry out in-house projects every year

b) **Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/other agencies:**

- About 50% students of Biochemistry department are Vocational biotechnology students. Every year since its introduction, as a course promoted by the UGC in 1995, the students of Vocational Biotechnology in fulfillment of the syllabus have to go to other institutions or industries for a summer internship during their first year or second year for a period of 20 to 30 days (8 hours per day). These projects enable the students to get an insight into applications of various theories and instruments used in industries and along with this, they also come to know about the know-how of the working environment. The students finally have to submit a training report.

23. Awards/ Recognitions received by faculty and students;

Travel Grant Award:

- Dr. Vijaya Nadagouda, a faculty in this department was awarded Travel Grant by UGC for attending & **presenting paper** on March 20th, in **Pitcon Conference & Exposition** held in Philadelphia, USA, from March 17th to 21st 2013.
- Six students have topped in Biochemistry subject at university and / college level in the last five years. These students have been awarded merit certificates for

excellence in the subject

24. List of eminent academicians and scientists/ visitors to the department

(I) The following academicians visited the department

- Dr. Amit Thakkar: Wyoming University, USA
- Dr. Meghna Patel: Cambridge University, UK
- Dr. Munjal Acharya: University of California, Irvine, USA
- Dr. Hyacinth Highland, Zoology Dept, School of Science, Gujarat University.

(II) Biochemistry department has organized UGC & GSBTM sponsored National seminar on Biochemistry – A science beyond compartmentalization” in December 2013. Following speakers delivered scientific talks during the seminar:

- Dr. Harish Padh, Vice-Chancellor, S.P. University, Vallabh Vidyanagar
- Dr. Alok Dhawan, Director, Institute of Life-sciences, Ahmedabad University
- Dr. Mukul Iswarlal Shah, M.B.B.S. Surgery, Medicine, Gynecology, DGO Obstetrics and gynecology, M.D. Obstetrics and Gynecology
- Dr. Datta Madamwar, Professor, BRD School of Biosciences, Sardar Patel Maidan, Vadtal Road, Satellite Campus, P. Box No. 39, Sardar Patel University, Vallabh Vidyanagar- 388120, (Gujarat), INDIA.
- Dr. Linz-Buoy George, Associate Professor, Department of Zoology, Biomedical Technology and Human Genetics, University School of Sciences, Gujarat University, Ahmedabad – 380 009.
- Dr. Savita Yadav, Additional Professor, All India Institute of Medical Sciences, New Delhi.
- Dr. Jayesh Sheth, Director, Institute of Human Genetics, FRIGE House, Jodhpur Gam Rd, Satellite, Ahmedabad-380 015
- BK Ishitaben BRAHMA KUMARIS 3, Lalitkunj Society Part-II, Nr. H.L.Commerce College Bus Stand, Navrangpura, Ahmedabad- 380009.
- Dr. Aruna Vanikar, Kidney Research Institute, Civil hospital campus, Ahmedabad.
- Dr. Devesh Bharajdwaj, Director, BioBegins Life Sciences, Ahmedabad.

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National

The department hosted a two day national seminar on “Biochemistry: A Science beyond Compartmentalization” from December 20-21, 2013.

The following workshops were conducted under **DBT Star college scheme**.

1. Capacity building workshop on Immunochemical Techniques for UG students from various colleges of Ahmedabad, March 2012
2. Workshop on Assessment of body composition of teaching & non teaching staff of M G Science Institute in March,2013
3. Capacity building workshop on techniques of molecular biology for higher secondary school teachers of Ahmedabad, February 2011
4. Capacity building workshop on Isolation of genomic DNA from bacteria for MSc. Students, March 2010.

b) International: - Nil

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			M	F	
BSc Sem I	2789	78	24	54	
BSc Sem III	78	59	17	42	
BSc Sem V	59	59	17	42	
UG Biochemistry	150	74	6	68	100
Vocational	100	30	3	27	100

The department has always had a high female to male ratio. This could be attributed to the fact that more girl students take up biology in their 12th Standard and an inclination towards research as a career option.

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
Sem II	97	03	Nil
Sem IV	98	02	Nil
Sem VI	98	02	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

- In Biochemistry Department, MS University, Baroda :: 20
- In Microbiology Department, MS University, Baroda:: 1
- JAM exam: 1
- Nirma University: 10
- Other University: 30

29. Student progression

Student progression	Against % enrolled
UG to PG	75- 80%
Employed	40%
Campus selection	< 01%
Other than campus recruitment	> 99%
Entrepreneurship/Self-employment	2%

30. Details of Infrastructural facilities

a) Library:

The department has around 15-20 CDs on various topics on biochemistry, around 10 books in CD form & more than 100 books which are available to the students in the department itself. The rest of the books are in central library that has more than 1000 books on biochemistry & 5 different journals on life science subject.

b) Internet facilities for Staff & Students:

The department has an internet portal for faculty and Wi-Fi accessibility. The students can avail internet facility for referencing in the department itself.

c) Class rooms with ICT facility:

The department owns a portable LCD projector & laptop computer which enables the faculty and students to give power point presentations during teaching and seminars. The Department also has an OHP

d) Laboratories:

One lab: Intake capacity is 22.

31. Number of students receiving financial assistance from college, university, government or other agencies:

One student has been awarded with DST, INSPIRE scholarship

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts:

- Past students who have cleared entrance exams are invited to guide & motivate final year students for competitive exams.
- Successful past students are invited to share their experience about their work, research & scope of the subjects in various industries & academia.
- Current research articles in Life sciences are displayed on notice board. The Notice board dedicated to articles, recent scientific developments, scientists' contributions to the field etc. is an approach that improves the subject knowledge and general

knowledge. This activity also builds curiosity in students and that can be a way of increasing their reading habits.

- Popular lectures on recent developments of science were arranged to develop interest in the subject.
- Nature tours & Treks were conducted with the help of NGO to sensitize students towards nature & environment.
- BAT online exam were conducted to help student to assess their level & this helped then to improve them further.

33. Teaching methods adopted to improve student learning:

In addition to regular classroom blackboard teaching method, the use of LCD/OHP/seminars/study tours/industrial trainings/ competitions/popular lectures/ assignments /question paper solving etc. are used to improve teaching-learning.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Biochemistry faculty is involved in Admission Process / Youth festival / or any other work for the students and society. One students has participated in NCC.

Dr. H. V. Pandya is involved in the following activities:

Sr.No.	Name of organization	Place	Your role	Topic	Date
1.	The Gujarat Cancer Research Institute, Ahmedabad	Ahmedabad	Judge	Cancer Biology	28 February 2013
2.	M.G.Scienc Institute	M. G. Science Institute	Convener	Placement Cell	Since last 3 yrs
3.	Ahmedabad Municipal Corporation	Ahmedabad	Member	Solid waste Management Committee	Since 2012
4.	School of Science Gujarat University	Biochemistry Department, Ahmedabad	Visiting faculty	Enzymology	January, 2011
5.	Institute of life science Ahmedabad University	Ahmedabad	Visiting Faculty	Metabolism Lipid biochemistry	2011 Onwards
6.	Anand Agricultural University	Anand	M.sc Dissertation & PhD examiner	Agricultural Biochemistry	2008,2009,2010, 2012
7.	State level Seminar National Seminar	M.G.Science Institute Ahmedabad	Organizing secretary	Climate change Scenario :Past Present & Future Biochemistry A Science beyond Compartmentalization	August 2013 December 2013

8	M.G.Science Institute	Ahmedabad	Convener of a subcommittee	NAAC report preparation	December2013
9	Gujarat University	Ahmedabad	Chairman	Board of Studies Biochemistry	Since June2012

Prof. Diti Chokshi is involved in the following activities:

Sr.No.	Name of organization	Place	Your role	Topic	Date
1.	Under DBT sponsored star college scheme, M. G. Science Institute	M. G. Science Institute	Chief Resource person	Workshop on “Assessment Of Health Status” For teaching Staff	March,2013
2.	CWDC,M. G. Science Institute	M. G. Science Institute	Co-convener	Seminar on “Gynecological & Health problems in College students”	Sep,2012
3.	St. Xavier’s college	Ahmedabad	Visiting faculty	Diet and lifestyle diseases	28-08-08 and 30-10-12
4.	School of Science Gujarat University	Biochemistry Department , Ahmedabad	Visiting faculty	Clinical Biochemistry	Jan, 2011
5.	Riverside School	Ahmedabad	Resource person	Health & Fitness	02-09-09
6.	Science Excellence-2008	Gujarat University	Volunteer and Guide for Oral & poster presentation	Nutritional biochemistry	Jan-2008-2010

Prof. Diti Chokshi also served as a resource person at the following seminar, conference, O.P, R.C:

Sr. No.	Name of Institution	Program	Program Topic	Date
1.	Judge at P.D. Patel Institute of Applied Sciences, Charusat University, Changa.	“Science Manthan-2014-Congregation of young Minds”	Recent Developments in Biological Sciences.	2 nd February,2014
2.	Resource Person at Delhi Public School, Bopal.	Citation Ceremony of the outgoing XII th students	Past Experiences and Future Promises’	30 th Jan,2014
3.	Resource Person At GSBTM sponsored Workshop at St. Xavier’s College	Training for cracking Entrance Exams	Inborn Errors of metabolism	Dec. 2013
4.	Expert Speaker at Gujarat Science City	National Nutritional Week	Identifying Malnutrition	Nov, 2011
5.	Resource Person at Gujarat University	Refresher Course	Food Adulteration	Jun ‘02
6.	Resource Person at Red Ribbon Club(Aids) M. G. Science Institute	Lecture session	Life skills & Fitness	12 th Nov-09

Details of Extension activities of Prof. Diti Chokshi: (excluding N.S.S / N.C.C):

Sr.No.	Self / Organization	Activity	Place	Date
1.	Executive council member of Students Union	Helping students to arrange various Competitions, days blood donation camps etc	M. G. Science Institute	From 2001 till today
2.	Prof-in-charge of Music Core Committee at Youth festival	Organizing all the events of music at the Youth festival	M. G. Science Institute	29-30 Sep,2008
3.	Co-convener	CWDC	M. G. Science Institute	From 2007 till today
4.	Collegiate Discipline Committee	Helping students arrange various educational and extracurricular activities in a conducive way.	M. G. Science Institute	From 2005 till today
5.	Collegiate Music core Committee	Organizing all the events of music at the various inter-college competitions and Cultural festivals.	M. G. Science Institute	From 1995 till today
6.	College Eco- club	Educating and collaborating between college students and other countries' CEE students on Environment &US	Collaboration with CEE & M. G. Science Institute	From August,2013
7.	NAAC Committee	Committee Member	Helped prepare report for re-accreditation for NAAC	December 2013- March, 2014
8.	Committee for Extension activities	Convener	For conducting educational activities for Adult Literacy, health awareness etc. and for the benefit of weaker sections of Society under the XII th UGC guideline plan scheme.	From January,2014

Dr. Vijaya Nadagouda is involved in the following activities.

Sr.No	Self/ Organization	Activity	Place	Date
1.	Forest Department, Govt. of India & Bird conservation society, Gujarat	Harrier Census - 2013	Velavadar Black Buck Sanctuary, Gujarat	16 th & 17 th Nov. 2013
2.	Forest Department, Govt. of India	Black Buck Census - 2010	Velavadar Black Buck Sanctuary, Gujarat	29 - 31 st Jan. 2010

3	Resource person : Knowledge Consortium of Gujarat	Workshop for Faculty	Workshop on promotion of culture of quality through research	18-20, Jan. 2014
4	Resource person : St. Xavier's college, Ahmedabad (GSBTM Sponsored)	Workshop for Students	Workshop for preparing students for National Level competitive examination	10-12 Nov. 2011
5	Judge Poster Presentation in the subject of Biochemistry in: Dept. of Botany, Gujarat University	Seminar	Vignan Parishad : Science Excellence -2011,	8 th Jan. 2011

Contribution to growth & development of institute during last 5 years through following;

Sr. No.	Committees	Position held	Work done
1	Research	Committee Member	Screening research projects
2	Personality Contest during college culture festival	Convener & Committee Member	Organized Personality Contest during college culture festival
3	NAAC Committee	Committee Member	Helped prepare report for re-accreditation for NAAC
4	College Eco- club	Educating and collaborating between college students and CEE students on Environment & US	Collaboration with CEE & M. G. Science Institute

Other responsibilities:

Research Activities:

Sr. No.	Title of Project	Funded by	Completed / in progress	Date of Starting
1	Screening of Antimicrobial Principals from local Mushrooms	UGC (Minor research project)	2009	27/12/06
2.	Degradation of textile dyes with the help of selected macrofungi	UGC (Major research project)	Will be completed by end of 2013	16.2.2009

Details regarding guidance for any research project /dissertation of P.G or M.Phil /Theses of Ph.D:

Sr.No.	Title of Work / Theses	Class	Name of students	Name of Uni.
1	Biographic Study	M.Sc	Naman Shah, Vaidehi Patel	Gujarat University
2	Mycochemistry	M.Sc	Akruti Patel	Gujarat University
3	Use of fungal cultures to decolorize textile dyes	M.Sc	Hemali Gohil	Gujarat University
4	Use of fungal cultures to decolorize textile dyes	M.Sc	Hetal	Gujarat University

5	Study of fungal pigments from selected fungal isolates Fungal Pigments	M.Sc	Hetashwi Rawal (2010)	Gujarat University
6	Dye degradation	M.Sc	Shaema Sheikh (2012)	Gujarat University
7	Decolorisation/ degradation of dyes by selected fungi & its lignin degrading enzymes	M.Sc	Pooja Patel (2012)	Gujarat University

Details about guest lecturer, counseling, visiting faculty and services in any organization:

Sr.No.	Name of organization	Place	Your role	Topic	Date
1	Biochemistry dept., Gujarat university	Ahmedabad	Visiting faculty	Enzymology	2006 - 2010
2	Life science dept., HNGU, Patan	Patan	Visiting faculty	Enzymology	2009 - 2012
3	PG Diploma in Applied Biochemistry, M S university, Baroda	Baroda	Examiner		March/ April 2010

Details of Educational Tour:

Sr.No	Place	Ind. / Dept.	Year
1	Nature Trek to Pole	Department	2010

Details of Co-curricular & Extracurricular activities of Vijaya Nadagouda:

Involved as resource person & volunteer since the last 15 years in nature camping, trekking camps organized by Sundervan, an extension unit of CEE, Ahmedabad. Wwf, Ahmedabad & YHAI, Ahmedabad main unit.

Details of association with any social, religious or professional organization:

Sr.No.	Organization	Type of membership	Position	Date of joining
1	Gujarat bird conservation society	Life member	Member	2009
2	Youth hostel association of India Youth	Life member	Member	1996
3	Alumni Association, Biochemistry Dept, M.S. University, Baroda	Life Member	Member	2006
4	Alumni Association M.G. science Institute, Ahmedabad	Life member	Member	2006

Any Other:

1. Isolated two fungal cultures, identified & got Accession numbers from Genebank
2. Travel Grant Award: Awarded Travel Grant by UGC for attending & **presenting paper** in **Pitcon Conference & Exposition** held in Philadelphia, USA in March 17th to 21st 2013.

Ms. S V Jha is involved in the following activities:

S.No.	Self / Organization	Activity	Place	Date
1	CWDC	Convener	M.G. Science Institute	2005 onwards
2	Personality contest, Stage & Decoration Committee and Quiz	Professor-in-charge	M.G. Science Institute	
3	Women's International League for peace & Freedom(WILPF)	Life-Member	Gujarat Vidyapeeth, Ahmedabad	2008 Onwards
4	DAICT (B.Tech Students)	Visiting Faculty	Gandhinagar	2007-2013
5	St Xavier's College GSBTM Sponsored	Resource Person	Ahmedabad	Mar-2012
6	Science Excellence	Guide for oral & poster presentation	Gujarat University	2009-2011
7	Women Development Cell	Resource Person for workshop on women's day	Gujarat University	2009
8	DBT Workshop for school teachers	Resource person	M.G. Science Institute	2010
9	HLIC	Judge for debate competition	Ahmedabad	2010
10	Board of Studies of Biochemistry	Member	Gujarat University	2009-2012

35. SWOC analysis of the department and Future

Strength:

- The department has highly competent teaching as well as non teaching staff with overall experience of more than 20years.
- Due to this there is a high demand for the subject.
- The department has obtained more 98% result at the university level.
- Books are available to the students through the department.
- Laboratory is equipped with proper instruments in sufficient numbers

Weakness:

- The department is short of both teaching & laboratory staff i.e. laboratory technician & peon.
- This leads to very poor student teacher ration of: 45:1
- Faculty members are unable to get involved in extracurricular activities.
- Laboratory space is too small & insufficient for the students.
- Laboratory facility needs to be upgraded

Opportunities:

If given labs and other requirements better facilities for the students, more research work, publications, projects, industrial collaborations leading to overall subject improvement, placement opportunities and overall growth of our students can take place.

Challenges

- To make students use reference books.
- How to motivate students to read outside the syllabus.
- Monitoring & reaching out to all students.
- Bridging academia- industry gap.
- Self Motivation for research purpose

19. Publications:

Journals

1. **Vijaya Nadagouda**, Manish Thakar, S A Bhatt, M D Shukla. "Data analysis of fungal mycelial radial growth on different nutritional media using statistical tools" International Journal for Academic Reviews, 1(1), January 2014
2. **Vijaya Nadagouda**, Jatin Parikh, M D Shukla. "Screening of Fungal Cultures for Their Dye Degradation Or Decolorisation Ability". Research Journal Of Chemistry And Environment, 16 (3), Sept. 2012.
3. Naman shah, Vaidehi Patel, **Vijaya Nadagouda**, M D Shukla, **H. V. Pandya**. "Bioautographical study of Staphylococcus aureus inhibition by crude extract of a selected white rot fungus," Advances in Biological Sciences. 7(1), Dec 2008
4. **Vijaya Nadagouda**, M D Shukla , **H V Pandya** , "Screening of local mushroom fruit body extract for antimicrobial activity", Advances in Biological Sciences, 7(1) Dec 2008.

Participation in Seminars, Conferences, Workshops, Symposia etc

Dr. H V Pandya:

Participation in Seminars, Conferences, Workshops, Symposia etc

Sr. No.	Title	Sponsoring Agency	Level	Date	Title of Paper (if Presented)
1	Creating Awareness & Sharing Benefits of Knowledge of Biodiversity	Gujarat Biodiversity Board	State	23 Jan. 2014	Participant
2	Fungal Biotechnology Inhibition by extract from a locally procured Ganoderma species	UGC	National	7-9 Jan 2011	Bio autographical study of <i>Staphylococcus aureus</i> and <i>Bacillus subtilis</i> Inhibition by extract from a locally ...

3.	International Conference on Environmental Issues in emerging & advanced economies; Canada, India	UGC	International	Dec 2009	Environment Conservation through Therapeutic Fungal Bio-factories.
3	Cross Disciplinary International Seminar on "Creating Excellence for Sustainable Society" HNG, Patan, Gujarat	UGC	International	May 15-16, 2011	Isolation, Identification & Preservation Of Mycelia of A Local Ganoderma Sp. (From Wild)
4	HPTLC training cum seminar	Gujarat University	State level	March 2013	Participant
5	"Data Analysis Using MS-Excel"	DBT	state	8 March 2010	Participant
6	Seminar on "Environment scenario in future"	GUJCOST	State	24 Jan 09	Participant
7	"Teachers Training Program In Bioinformatics"	DBT	State	21 Nov., 2009	Participant
8	Current trends in microbiological sciences	UGC	National	23-24 January 2010	Use of macro fungi in production of value added products

Prof. Diti Chokshi

Participation in Seminars, Conferences, Workshops, Symposia etc.

Sr. No.	Title	Sponsoring Agency	Level	Date	Title of Paper (if Presented)
1.	Science Excellence-2014	GUJCOST	National	4 th January, 2014	Delegate
2.	Workshop on "Creating awareness and sharing Benefits of knowledge Biodiversity"	Gujarat Biodiversity Board	State	23 rd Jan, 2014	Delegate
3.	National Seminar on Biochemistry-"A Science beyond Compartmentalization"	UGC and GSBTM	National	20 th & 21 st Dec, 2013	Joint Secretary and presented two Posters on Junk foods and Chemical Calories
4.	Biotechnology Seminar	Ahmedabad Management Association	National	16 th March, 2013	Delegate
5.	Workshop on Women in Science & Technology	Institute of Life sciences, AU	National	8 th & 9 th March, 2013	Delegate
6.	Seminar on "Challenges in Climate Research"	ICCSIR	National	5 th January, 2013	Delegate
7.	National Seminar on "Recent Advances in Stem cell research"	ICMR	National	28 th Dec, 2012	Delegate
8.	Conference on "Status of Women in Gujarat"	WILPF	State level	2 nd March, 2012 to 3 rd March, 2012	Delegate

9.	43 rd Conference on Lifestyle diseases & health and nutritional wellness	ICMR & NIN, Hyderabad	National level	11 th & 12 th November, 2011	Delegate
10.	Workshop on Nutrigenomics	NIN, Hyderabad	National	10 th Nov., 2011	Delegate
11.	Seminar on “Functional Foods”	UGC	National	7 th & 8 th Oct, 2011	Delegate
12.	Teachers’ Training & Capacity Building programme	KCG, Dept. of Education, Gujarat Govt.	State level	20 th -25 th June, 2011	Delegate
13.	Bioinformatics Workshop on “Rational Drug Designing”	Under DBT Star college Grants scheme	State	11 th Feb, 2011	Delegate
14.	International Conference on Molecular Medicine	CHARUSAT, Changa	International	9 th -11 th Jan, 2011	Delegate
15.	International Conference on Global warming	ISCE, Guj Vidyapith	International	11 th -13 th March, 2010	Paper presentation on ‘Who will save the World?’
16.	Impact of Statistics on Science & Society	DBT	National	25 th & 26 th Feb, 2010	Paper presentation on “Statistical analysis of Nutritional Status of school going children of Ahmedabad”
17.	Two day awareness workshop on ‘Women in Science’	DST	National	18 th & 19 th March, 2010	Delegate
18.	Three day hands-on workshop on “Immunotechniques & Proteomics	Helini Biomolecules & St. Xavier’s college	State	29 th -31 st March, 2010	Delegate
19.	Pre- conference workshop at 42 nd National Conference of NSI on “Wholesome Nutrition: Challenges, Scope & Management”	Nutrition Society of India, Mumbai	National	18 th November, 2010	Participant
20.	42 nd National Conference at Nutrition Society of India Mumbai chapter	Nutrition Society of India, Mumbai	National	19 th & 20 th Nov, 2010	Poster presentation on “Nutritional Assessment of School going Children from Different Socio Economic Classes of Ahmedabad”
21.	Workshop on “Teacher’s training programme in Bioinformatics”	DBT	State	21 st Nov, 2009	Delegate
22.	Seminar on “Current trends in Microbiological Sciences”	UGC	National	23 rd & 24 th Jan, 2010	Delegate

23.	Workshop on “Animal tissue culture	DBT(Star college Scheme)	State	6 th Feb,2010	Delegate
24.	International Conference on “Environmental Issues in Emerging and advanced economies:Canada,India	UGC and GUJCOST	International	6 th -8 th December, 2009	Poster presentation on “Role of Vegetarianism in Environment Conservation”
25.	Environment Education and Disaster Risk management	UGC	State	28 th Jan,2009	Delegate
26.	Enviro-Next 2009,Environment Scenario in future	GUJCOST	State	24 th Jan,2009	Delegate
27.	Ellisbridge North Zone Youth Festival	Guj. Univ	State	29-30 th Sept,2009	Professor-in-charge from the entire college
28.	Science Excellence-2008	GUJCOST	State	5 th Jan,2008	Volunteer

Ms. Sunita Jha;

Participation in Seminars, Conferences, Workshops, Symposia etc

Sr. No.	Title	Sponsoring Agency	Level	Date	Title of Paper
1	Animation In Biology	DBT	College	Mar’13	Delegate
2	Biotechnology Seminar	AMA	National	Mar’13	Delegate
3	Women in Science & Technology	Ahmd. Univ.	National	Mar’13	Delegate
4	Challenges in Climate Research	ICCSIR	National	Jan 2013	Delegate
5	Recent advances in Stem Cell Research	ICMR	National	Dec ‘12	Delegate
6	Status of women in Gujarat	WILPF	State	Mar ‘12	Delegate
7	Teachers’ Training & Capacity Building prog.	KCG, Dept. of Education	State	Jun’11	Delegate
8	Rational Drug Designing (Bioinformatics)	DBT star college	State	Feb’11	Delegate
9	Conference on Molecular Medicine	CHARUSAT, Changa	International	Jan’11	Delegate
10	Women in science	DST	National	Mar’10	Delegate
11	Workshop on Immunotechnology & Proteomics	St. Xavier’s	State	Mar’10	Participant
12	Current Trends in Microbiological Sciences.	UGC	National	Jan ‘10	Participant
13	Animal Tissue culture workshop	DBT	State	Feb’10	Participant
14	Geofeminism	International Conference on Environmental Issues in emerging & advanced economies;Canada,India	Poster presentation	Dec’09	Participant
15	Teachers Training in Bioinformatics	DBT	State	Nov ‘09	Participant

16	Enviro-next(future scenario)	GUJCOST	State	Jan '09	Delegate
17	Environment Education & disaster risk management	UGC	State	Jan '09	Delegate

Dr. Vijaya Nadagouda:

Participation in Seminars, Conferences, Workshops, Symposia etc

Sr. No.	Title	Sponsoring Agency	Level	Date	Title of Paper (if Presented)
1	Creating Awareness & Sharing Benefits of Knowledge of Biodiversity	Gujarat Biodiversity Board	State	23 Jan. 2014	Participant
2.	Pittcon Conference Exposition, USA	Pittcon, USA	International	March 20, 2013	Growth Characterization of Pure Mycelial Ganoderma sp. Culture Isolated from Gujarat, India.
3.	“Evolving paradigm to improve productivity from dynamic management & value addition for plant genetic resource” National Symposium 2011, Department of Botony, Gujarat university	UGC	National	13-15 Oct. 2011	Data Analysis Of Fungal Mycelial Radial Growth on Different Nutritional Media Using Statistical Tools.
4	Cross Disciplinary International Seminar on “Creating Excellence for Sustainable Society” HNG, Patan, Gujarat	UGC	International	May 15-16, 2011	Isolation, Identification & Preservation Of Mycelia Of A Local Ganoderma Sp. (From Wild)
5.	Fungal Biotechnology	UGC	National	7-9 Jan 2011	Bioautographical study of <i>Staphylococcus aureus</i> and <i>Bacillus subtilis</i> Inhibition by extract from a locally procured Ganoderma species
6	Fungal Biotechnology	UGC	National	7-9 Jan 2011	Bioremediation of reactive dyes by selected white rot fungi
7	“Animal Tissue Culture”	DBT	State	6 th Feb. 2010	Participant
8	“Impact of statistics on science & society”	UGC	National	25-26, Feb. 2010	Participant
9	“Data Analysis Using MS-Excel”	DBT	state	8 March 2010	Participant
10	Women in Science	DST	State	18-19 March, 2010	Participant

11	Workshop on "Immunotechniques & Proteomics"	Helini Biomolecules	State	29-30 March 2010	Participant
12	Seminar on "Environment scenario in future"	GUJCOST	State	24 Jan 09	PARTICIPANT
13	Current trends in microbiological sciences	UGC	National	23-24 January 2010	Use of macro fungi in production of value added products
14	Environment Education & disaster risk management	UGC	State	Jan '09	Participant
15	Environment Education & disaster risk management	UGC	State	28-29 Jan '09	Participant
16	"Teachers Training Program In Bioinformatics"	DBT	State	21 Nov., 2009	Participant
17	International Conference on Environmental Issues in emerging & advanced economies; Canada, India	DBT	International	Dec 2009	Environment Conservation through Therapeutic Fungal Bio-factories.
18	International Conference on "Environmental Issues in Emerging and advanced economies: Canada, India	UGC and GUJCOST	International	6 th -8 th December, 2009	Poster presentation on "Role of Vegetarianism in Environment Conservation"
19	International Conference on Environmental Issues in emerging & advanced economies: Canada, India	UGC	International	Dec 2009	Ecofeminism
20	XXII Gujarat Science Congress, 2008	GUJCOST	State	9 th March 2008	Participant
21	Summer workshop on fungal biotechnology	CAS in Botany, Uni. of Madras	National	14 th -20 th July, 2008	Participant
22	Science Excellence-2008	GUJCOST	State	5 th Jan 2008	Participant
23	XXII Gujarat Science Congress, 2008	Bhavnagar Univ.	State	9 March, 2008	Participant

Department of Botany

1. **Name of the department:** Botany
2. **Year of Establishment:** 1956
3. **Names of Programmes / Courses offered**
 - a. B. Sc. Botany

4. Names of Interdisciplinary courses and the departments/units involved:

The Botany department, apart from UG Botany course by Gujarat University, is also involved in teaching UG course of IGNOU Viz., LSE4, LSE8 and LSE14

5. Annual/ semester/choice based credit system (programme wise):

The department has been following the University pattern from the year of establishment. Currently all students are following the semester system as the University introduced the CBCS structure from 2011 onwards.

6. Participation of the department in the courses offered by other departments:

Two faculty members have been taking classes for Bioinformatics programme run by the Microbiology dept. while one faculty member engages the classes of Biostatistics of COP program

7. Courses in collaboration with other universities, industries, foreign institutions, etc.

We are offering LSE 1-8 as an IGNOU course under the Convergence scheme.

8. Details of courses/programmes discontinued (if any) with reasons: No

9. Number of Teaching posts:

	Sanctioned	Filled
Professors	1	1
Associate Professors	3	3
Asst. Professors	2	2
Adhyapak Sahayaks	0	0

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialization	Exp/ Years	No. of Ph. D. students guided
Dr. B.K.Jain	M.Sc., Ph.D	Principal, Assoc. Prof.	Genetics, Embryology, Biotechnology, Ethnobotany, Allelopathy	27-UG 22-PG	12

Dr. A.M.Shukla	M.Sc., Ph.D.	Assoc. Prof and HoD	Environmental Biology, Remote Sensing, Economic and Ethnobotany	21	---
Sh. N. R. Mulia	M.Sc.	Assist. Prof	Taxonomy	16	--
Sh. D. K. Vaghela	M.Sc., M.Phil.	Assoc. Prof	Cell-Biology	22	--
Dr. N. R. Modi	M.Sc., M.Phill., Ph.D	Assoc. Prof	Ecology, Genetics, Fungi, RMI	21	--
Dr. Z. N. Rathod	M.Sc., M.Phill., Ph.D.	Assist. Prof	Plant Physiology, Plant Tissue Culture, Phytochemistry	8	--

11. List of senior visiting faculty:

Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

Nil.

13. Student -Teacher Ratio (programme wise):

The current teacher student ratio is FY (35:1); SY (24:1); TY (6:1)

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

There are two Lab Assistants, two laboratory peons, one plant collector sanctioned but only one lab assistant and one plant collector post have been filled

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil/PG.:

Currently four faculties are with doctorate, one is pursuing doctorate and two are PhD guides

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

Two Faculty: Dr. A. M. Shukla and Dr. Z. N. Rathod have ongoing projects

Two Projects are completed.

Sr. No.	Name of Faculty	Title of Project	Funded by	Grants Received	Date of Starting
1.	Dr. B. K. Jain	Bio climatic index	SAC-ISRO National Completed	5 Lac	1-4-2010 to 31-3-2011

2.	Dr. A. M. Shukla	Coastal Zone management	SAC-ISRO National Completed	5.28 Lac	Oct. 2006 to March, 2008
3.	Dr. A. M. Shukla	Mapping of Ecological conditions of Global Coral Reefs	SAC-ISRO National Ongoing	45 Lac	01-10-2008
4.	Dr. A. M. Shukla	Calibration of RISAT-1 SAR sensor and validation of SAR derived Soil Moisture	SAC-ISRO National ongoing	19 Lac	01-06-2012
5.	Dr. A. M. Shukla	Integrated Coastal Zone Management	SAC-ISRO National	25 Lac	01-07-2013
6.	Z.N. Rathod	Phytochemistry and Multiplication of <i>Argeriya speciosa</i>	UGC National Ongoing	1 Lac	1/09/2012
7.	Z.N. Rathod	Construction of PBR in ten villages of Daskroi taluka	Gujarat Biodiversity Board State/ ongoing	4.5 Lac	1/8/2013

17. **Departmental projects funded by DST, DST-FIST; UGC, DBT, ICSSR, etc. and total grants received:** As above

18. **Research Centre /facility recognized by the University:**

NA

19. **Publication:** List is given at the end of the document

20. **Areas of consultancy and income generated:**

Remote Sensing Applications; 15% of total cost of the research project goes to AES as overhead charges.

21. **Faculty as members in**

b) **National committees b) International Committees c) Editorial Boards**

Dr. B. K. Jain

- Appointed as a member of **Advisory board- Academic Staff College, Gujarat University, Ahmedabad,**
- Appointed as a member of Selection Committee for nominating student of Gujarat University to visit the Japan under **Indo-Japan students, exchange programme,** year 2009-10.
- Writer and translator for **Science and Technology of IX and X std. and Biology of XI and XII std. (Semester System commencing from June, 2011).**
- Convener, Self assessment books (Gujarati and English) from std. IX to Std. XII. Advisor for the revised edition of practical books (Gujarati and English) from IX std. to XII Std. Appointed as a **Key Resource Person (KRP)** to train the teachers of

X and XIIs standard in the field of BIOLOGY

- Appointed as a Programme Incharge, Indira Gandhi open University study centre (Letter No. F.2 /RCA/Appt/ SC/88/14043 dated 4th Oct., 2007
- Appointed as a Convener of **Shaikshanik Prohtsan** (Education Promotion and Inspiration) Committee by Jain Social group Gujarat Region for the year 2006-07.

Dr. Alpana Shukla

- **Dr. Alpana** has co-coordinated Botany Text Book writing by Guj. Granth Nirman Board
- **Dr. Alpana** is Joint Secretary of Indian Society of Geomatics- Ahmedabad Chapter.

22. Student projects

c) Percentage of students who have done in-house projects including inter-departmental/programme: 100%

- All UG students have completed research projects as part of their syllabi.

d) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/other agencies:

Ours is a UG college and most students take up higher studies before finding placement.

23. Awards/ Recognitions received by faculty and students;

- Dr. B. K. Jain has been appointed as a **Fellow of Life Science Leaflets**, by Paavan Education Trust on 15-03-2013. Trust publishes an international journal entitled **Life Science Leaflets**.
- Dr. Alpana Shukla has received “President’s Appreciation Medal” for contribution to Indian Society of Geomatics, for the year 2013. The award includes a gold medal, a citation and cash prize.

24. List of eminent academicians and scientists/ visitors to the department

- Dr. M. T. Chhabria, Associate Professor, L. M. College of Pharmacy gave a talk on, “Antimycobacterium drug designing”
- Dr. Alok Dhawan, Director, Institute of Life Sciences, Ahmedabad University, gave a very popular and vividly engrossing talk on, “Nanobiotechnology in Healthcare”
- Dr. Pranav Trivedi, delivered **two** lectures on, “Himalayan Flora and wild life”
- Dr. Vaidya Viral Shah delivered a talk ‘Utility of good conduct in maintaining positive health’- on 10th of February 2013. He talked on importance of medicinal plants and having good values to achieve good health. Students took a lot of interest

and asked him many questions regarding the use of ginger and many other common medicinal plants.

- Ms. Shamina Pathan, alumni of the Department, currently studying for her Ph. D. in Italy, talked to students about how to get grants and scholarships for higher studies abroad.

25. Seminars/ Conferences/Workshops organized & the source of funding

a) **National:** Nil

b) **International:** Nil

c) **State:**

- UGC sponsored state level seminar on “Environmental Education and Disaster Risk management” ; 28-29 Jan. 2009
- ISG-AC sponsored one-day workshop on “Remote Sensing: A tool in the monitoring of Ecosystems”; 8-10-11
- Several workshops on PTC for students as well as faculty members have been organized under DBT grant, 2010 to 2013
- GBB sponsored one day workshop on “Creating Awareness and sharing the benefits of knowledge of Biodiversity” on 23-01-2014
- Exhibition on Space at Prakash School, Bodakdev, Ahmedabad, 2013 funded by ISG, Ahmedabad Chapter.

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			M	F	
BSc Sem I	2789	288	138	150	
BSc Sem III	288	127	67	60	
BSc Sem V	127	36	18	18	

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
B.Sc. Sem II	92%	8%	Nil
B.Sc. Sem IV	87.32%	12%	0.68%
B.Sc. Sem VI	80%	20%	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Data is not available

29. Student progression

Student progression	Against % enrolled
UG to PG	60%

30. Details of Infrastructural facilities

a) Library:

The departmental library has 180 books and central library has 1000 books.

b) Internet facilities for Staff & Students:

The department has an internet portal for faculty and Wi-Fi accessibility. The students can avail internet facility for referencing within the department.

c) Class rooms with ICT facility:

The department owns a portable LCD projector, which enables the faculty and students to give power point presentations for teaching and seminars respectively. The Department also has an OHP.

d) Laboratories:

Two labs: Intake capacity is 100. One PTC lab with capacity of 10 students

31. Number of students receiving financial assistance from college, university, government or other agencies: -

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts:

- Seven popular lectures were arranged
- Study tours / Industrial visits – 5 tours + 3 industrial visit
- Final year B.Sc. - seminars/assignments

33. Teaching methods adopted to improve student learning:

In addition to regular classroom blackboard teaching method, the use of LCD/OHP/seminars/study tours/industrial trainings/ competitions/popular lectures/ assignments /question paper solving etc. are used to improve student learning.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities.

Botany faculty are involved in Admission process/youth festival/ Discipline committee/ KCG/ tree plantation or any assigned work for the good of students and society.

No.	Programme	Participation
1	NCC	3 students
2	Environmental programmes	all faculty members and students
3	Youth festival	5 faculty members and 2 students
4	Cultural programmes	1 faculty member and 3 students

35. SWOC analysis of the department and Future

Strength:

- The department is involved in MoU with CEE.
- Out of five, three faculty members represent Board of Study in Botany, Gujarat University.
- The department has established Plant tissue culture lab.

Weakness:

- Could have more trained lab staff. Could have some value added courses as well as -PG and more research projects for faculty and students.
- Deficiency of required staff.

Opportunities:

If given PG, and other requirements: more value added programmes, research, Publications, projects, industrial collaborations leading to over all subject improvement, placement opportunities and overall growth of our students will be take place.

Challenges

Since the department has acquired reputation in good fundamental and advance teaching, outstanding collection of field and museum specimens, adequate infrastructural facilities etc, has posed a biggest challenge not only to maintain the high standards but also raise the bar and perform continuously extraordinarily.

19. Publications:

Books

Dr. B. K. Jain:

- Nirav College Biology paper I for F. Y. B. Sc. students, Gujarat and North Gujarat University, Nirav Prakashan
- Paryavaran (Co- author) Published by Popular Publication, Surat, 2011

Gujarat Text Book Board Publication :

Sr. No.	Author/Co-author/Reviewer/Convener	Book title	Year
1.	B.K.Jain (Reviewer)	Biology Part I & II Std XII	2005
2.	B.K.Jain (Reviewer)	Jev vigyan Part I & II (Gujarati) Std. XII	2005
3.	B.K.Jain (Co-author) and Translator for Gujarati medium	Exercises for self learning, Biology Std XI Sem. I	2011
4	B.K.Jain (Co-author) and Translator for Gujarati medium	Exercises for self learning, Biology Std XI Sem. II	2011

5	B.K.Jain (Co-author) and Translator for Gujarati medium	Exercises for self learning, Biology Std XII (Annual Pattern) Part I	2006
6.	B.K.Jain (Co-author) and Translator for Gujarati medium	Exercises for self learning, Biology Std XII (Annual Pattern) Part II	2006
7.	B.K.Jain (Convener and Co-author and Translator for Gujarati medium	Science and Technology Std. X	2010
8.	B.K.Jain (Co-author and Translator for Gujarati medium	Science and technology Std. IX, Sem. I	2011
9.	B.K.Jain (Co-author and Translator for Gujarati medium	Science and technology Std. IX, Sem. II	2011
10	B.K.Jain (Convener and Co-author and Translator for Gujarati medium	Practical book Std. IX Sem.I	2011
11	B.K.Jain (Convener and Co-author and Translator for Gujarati medium	Practical book Std. IX Sem.II	2011
12	B.K.Jain (Convener and Co-author and Translator for Gujarati medium	Exercises for self learning, Science and technology Std –IX Sem.I	2011
13	B.K.Jain (Convener and Co-author and Translator for Gujarati medium	Exercises for self learning, Science and technology Std –IX Sem.II	2011
14.	B. K. Jain (Co-author and translator for Gujarati medium)	Biology Std. XI Sem.I	2011
15.	B. K. Jain (Co-author and translator for Gujarati medium)	Biology Std. XI Sem.II	2011
16.	B.K.Jain (Convener and Co-author and Translator for Gujarati medium	Exercises for self learning, Biology Std –XI Sem. I	2011
17	B.K.Jain (Convener and Co-author and Translator for Gujarati medium	Exercises for self learning, Biology Std –XI Sem. II	2011
18	B.K.Jain (Subject advisor and Translator for Gujarati medium	Biology practical and record book Std –XI Sem.I	2011
19	B.K.Jain (Subject advisor and Translator for Gujarati medium	Biology practical and record book Std –XI Sem.II	2011
20	B. K. Jain (Co-author and translator for Gujarati medium)	Biology Std. XII Sem.III	2012
20	B. K. Jain (Co-author and translator for Gujarati medium)	Biology Std. XII Sem.III	2012
21	B. K. Jain (Co-author and translator for Gujarati medium)	Biology Std. XII Sem.IV	2012
22	B.K.Jain (Convener and Co-author and Translator for Gujarati medium	Exercises for self learning, Biology Std –XII Sem. III	2012
23	B.K.Jain (Convener and Co-author and Translator for Gujarati medium	Exercises for self learning, Biology Std –XII Sem. IV	2012
24	B.K.Jain (Subject advisor author and Translator for Gujarati medium	Biology practical and record book Std –XI I Sem.III	2012
25	B.K.Jain (Subject advisor , author and Translator for Gujarati medium	Biology practical and record book Std –XII Sem.IV	2012

Research Publications:

1. Dave D.N. and Jain B.K. (2009) Allelopathic effects of *Chenopodium album* L. on *In vitro* seed germination of *Triticum aestivum* L. Jour. Indian Bot. Soc. 88(1&2) :1-4.

2. Dave D.N., Patel N.B. and Jain B.K. (2011) Ethnobotanical significance of some weed species of Malvaceae, Caesalpiniaceae, Amaranthaceae and Asteraceae of Sabarkantha district of North Gujarat. Lifesciences Leaflets Vol. 17 :616-620
3. Prajapati P.P. and Jain B.K. (2010) Effects of sucrose, boron, calcium magnesium and nitrate during *in vitro* pollen germination in *Luffa aegyptica* Mill. (Accepted for publication in Prajna- A Journal of Life Sciences, S.P.University 18 : 5 -8.
4. Prajapati P.P. and Jain B.K. (2009) Effects of lights of different colours on *in vitro* pollen germination and tube growth in *Luffa aegyptica* Mill. J. Swamy Bot. Cl.26: 73-78
5. Mehta P.K. and Jain B.K. (2010) Study of sacred groves of Poshina range forest of Sabarkantha district of North Gujarat (Communicated for publication to Ethnobotany)
6. Urvi D. Bhatt and Jain B.K. (2009) Ethnomedicinal uses of some important plants recorded from forest areas of Shoolpaneshwar wildlife sanctuary., Narmada district (Gujarat). Ethnobotany (International Jour of the Society Ehnobotanists) 21(1&2) :70-74
7. Bindu Vijay and Jain B.K. (2010) Allelopathic effects of *Lantana camara* L. on *in vitro* seed germination of *Phaseolus mungo*. Inter. Jour Plant Sci 5 (1): 43-45.
8. Bindu Vijay and Jain B.K. (2010) Genetically modified crops –issues and challenges -A review. Inter. Jour Plant Sci 5(1): 363-365.
9. Mehta P.K. and Jain B.K. (2010) Study of sacred groves and sacred plants of Poshina forest range of Sabarkantha district (North Gujarat) . Life Science Bulletin 7(1) 21-24
10. Mehta P. K. and Jain B.K. (2011) Floristic study of sacred groves of Poshina forest range of sabarkantha district, North Gujarat. – Accepted for publication in Inter. Jour. Plant Sci. Vol. 5:137-141
11. Shah J.P., Dabgar Y.B. and Jain B.K. (2010) A contribution to the wetlands in Kachchh district of Gujarat. Asian Jour of Environ. Sci.5(2)126-130
12. Pandey C.N., Pandey R. and Jain B.K. (2010) Reproductive phenology of *Rhizophora mucronata* Lamk. Mangrove species of Rhizophoracear in the gulf of Kachchh, Gujarat, India. Phytomorphology 60 (3&4) : 91-100.
13. Raval K.V. and Jain B.K. (2011) Allelopathic response of *Gloriosa superba* L. to *Avena sativa*. Bioscience Guardian 2(1) : 349-354
14. Prajapati P.P. and Jain .B. K. (2010) Effect of sucrose, boron, calcium, magnesium and nitrate during *in vitro* pollen germination in *Luffa aegyptica* Mill. Prajna- Journal of pure and applied science Vol. 18 : 5-8.

15. Dave D. N. and Jain B.K. (2009) Allelopathic effect of *Chenopodium album* L. on *in vitro* seed germination of *Triticum aestivum* L. Jour. Indian Bot. Soc. 88 : 1-4
16. Mehta P.K. and Jain B.K. (2011) Ethnobotanical study of sacred groves of Poshina forest of sabarkantha district, North Gujarat Inter. Jour. Plant Sci. 6 : 362-366
17. Bindu V. and Jain B.K. (2011) Allelopathic effect of *Digera muricata* (L.) mart on *in vitro* seed germination of *Pennisetum typhoideum* Inter. Jour. Plant Sci. 6 : 332-335
18. Ekta Joshi, Jain, B.K. and Joshi P.N. (2011) Diversity pattern of habitats and vascular plant species in Tapkeshwari Hill Ranges in the Kachchh island, Gujarat, India. Indian Forester 137 : 2011-2014.
19. Prajapati P.P. and Jain B. K. (2011) Effect of leaf extract on *in vitro* pollen germination and pollen tube growth in *Luffa aegyptica* Mill and *Momordica charantia* L The Bioscan 6 (3) : 447-449
20. Dabgar P.J. and Jain B.K. (2012) The study of socio economic plants of Balaram sanctuary (North Gujarat). Life Sciences Leaflets 2: 58-63
21. Dabgar P.J., Jain B.K and Dabgar Y.B. (2012) The study of anthropogenic pressure on the biodiversity of Balaram sanctuary (North Gujarat). Life Sciences Leaflets 2: 64-69.
22. Dabgar P.J. and Jain B.K. and Dabgar Y.B. (2012) Taxonomical survey on Balaram sanctuary of North Gujarat. Bio Chemical Science (Vol. 2):
23. Shah J.P., Dabgar Y.B. and Jain B.K. (2011) Quantitative analysis of aquatic macrophytes in certain wetlands of Kachchh district, Gujarat. Prajna jour. Pure & appli. Sci. Vol 19: 11-13
24. Mehta Kavita, Patel B.N. and Jain B.K. (2013) Phytochemical analysis of leaf extract of *Phyllanthus fraternus*. Res. Jour. Recent Sciences Vol. 2 : 12-15.
25. Prajapati P. P. and Jain B.K. (2012) Histochemical localization of some metabolic substances in pollen and pollen tube of *Luffa aegyptica* Mill. Jour. Swami bot. Cl. 29 : 13 – 18
26. Mehta Kavita, Patel B. H., Dar Y.B., Upadhyay N.V., Jain, B.K. and Suresh C. K. (2013) To study the genetic variations among the *Azospirillum lipoferu* isolates using randomly amplified polymorphic DNA (RAPD) marker. Inter. Jour. Scientific Res. and Dev. 1(2); 200-205.
27. Mehta Kavita, Patel B.N. and Jain B.K. (2013). Effects of extracts of different parts of *Gloriosa superba* L. on *in vitro* seed germination and growth in *Avena sativa* L. Inter. J. Pl. Sci. 8 (2)

28. Joshi E. B., Joshi P.N. and Jain B. K. (2013). Ecology and marketing pattern of ethnomedicinal plants of Kachchh district, Gujarat. Life Sci. Leaflet 7 : 35-46
29. Raval K. V., Patel B. N. and Jain B. K. (2013) Effect of extract of different parts of *Gloriosa superba* L. on *in vitro* seed germination and growth in *Avena sativa* L. Inter. J. Plant Sci. vol. 8 (2):
30. Jain B. K. and Patel V. A. (2012) Pre and post pollination changes in amino acids and mineral compositions of anther and stigma in *Solanum surattense* Burm.F. Prajna- J of Pure and Applied Sci. 20 : 19-23
31. Kotadiya N.G., Jain B. K. and Acharya C. A. (2013) Correlation of plankton diversity and density with physico chemical parameters in Godhavi pond, rural area of Ahmedabad. The Microbes 4 : 7-15.,2003

International conferences attended and paper presented:

1. Traditional medication in Tapkeshwari hill range of Bhuj taluka, Kachchh district, Gujarat (India). **Melbourne, Australia**, from 23rd July to 30th July, 2011.
2. Pre and post pollination changes in amino acid and mineral composition of anther and stigma in *Solanum surattense* Burm.f. **Melbourne, Australia**, from 23rd July to 30th July, 2011.
3. Antibacterial and antifungal potentiality of leaf extract of *Phyllanthus fraternus* Webster. **Antalya, Turkey**, from 2nd Nov. to 5th Nov., 2013

State or National Level conferences –Lectures delivered as a resource person :

1. **“Environment and Disaster management”** - As a resource person delivered a talk in the refresher programme organized by UGG Academic Staff College, Gujarat University, Ahmedabad on 21st Feb., 2008
2. **“Paryavaran Suraksha”** As a resource person delivered a talk in the International Society for Research on civilization diseases and on environment on 6th Jan., 2010.
3. Inaugurated Hindi Divas at PRL, Ahmedabad and delivered a talk on **Biotechnology and its applications. March, 2010.**
4. Delivered a guest lecture on **Competence building through research** in one day state level work-shop organized by Shri C.N.P.F. Arts and D. N. Science College, Dabhoi on 15th March, 2012.
5. Delivered a guest lecture on **Financial assistance from various funding agencies for research** in one day state level work-shop organized by Shri C.N.P.F. Arts and D. N. Science College, Dabhoi on 8th April, 2012.

6. Delivered a lecture as a resource person on **Green environment : Structure and protection**, on 2nd Feb., 2013 in UGC sponsored State Level Seminar on Green India through Green Channel organized by Arts, commerce and Science college, Borsa, Dist. Anad, Gujarat.
7. Delivered a Lecture on **Biotechnology and its applications** in a work shop on “New horizons of Science”, organized by M. B. Patel English medium school under collaboration of Indian Academy of Science on 16th Feb., 2014.

Dr. Alpana Shukla Research Publications

A) Books:

- 1) Coastal Zones of India, Space Applications Centre ISBN No. 978-81-909978-9-8
- 2) Co-ordinator and one of the authors for reference book for Botany, Sem-I and Sem-III, at the instance of Commissionerate of higher education, Govt. of Gujarat.

B) Scientific Reports:

- 1) Parul Patel, H.S.Srivastava, M.Mishra, P.R.Patel, Alpana Shukla, R.P.Prajapati, A.K.Shukla and Ajai: “RISAT-1 SAR Calibration- Recent results”, SAC/EPSA/MPSG/CVD/CAL-VAL/09/12
- 2) Parul Patel, H.S.Srivastava, M.Mishra, P.R.Patel, Alpana Shukla, R.P.Prajapati, A.K.Shukla: “RISAT-1 SAR Calibration- Part-1 Field campaign and Processing”, SAC/EPSA/MPSG/CVD/CAL-VAL/11/13
- 3) Parul Patel, H.S.Srivastava, M.Mishra, P.R.Patel, Alpana Shukla, R.P.Prajapati, A.K.Shukla: “RISAT-1 SAR Calibration- Part-2 Recent results using Ahmedabad, Bhachau and Roorkee sites”, SAC/EPSA/MPSG/CVD/CAL-VAL/12/13

C) International Conference- Co-Chair of session and participation:

1. **Presented a paper at the International Symposium on Digital Earth, at Beijing, China.** (September 2009); Co-chaired a Session in Beijing Conference.

Papers and Abstracts Published:

- 1) Shukla Alpana, Trivedi Kosha and Chauhan H.B.2007: “Mangrove mapping using Remote Sensing”; Adv.Bio.Sci.Vol.6 (1&2) (107-111)
- 2) Alpana Shukla, H.B. Chauhan 2012 “Monitoring the impact of anthropogenic activities on the coastal ecosystem using remote sensing satellite data”; Life Sciences Leaflets Vol.5 May, 2012, pg 47-52

- 3) Dimpal Sanghavi, Richa Tiwari, Nandini Ray Chaudhary, Alpana Shukla & Ajai: “Inventory and monitoring of coral reefs of UAE, Arabian Gulf, using remote sensing techniques”, Indian Journal of Marine Science,
- 4) Shukla, Alpana, Chuhan, H. B.; 2011: “Impact of spatial resolution on coastal zone mapping” for Prajna Journal, under review
- 5) Alpana Shukla, H.B. Chauhan :2009; Abstracts of ‘Geomatics 2009’ National Conference, Dehradun, 2009: “Monitoring the impact of anthropogenic activities on the coastal ecosystem using remote sensing satellite data”; p-68
- 6) Alpana Shukla and H.B. Chauhan: Abstracts of ‘Geomatics 2010’ National Conference, Ahmedabad, 2010: “Spectral Separability of Mangroves in Infrared region”; p-93
- 7) Nandini Ray Chaudhary, Richa Tiwari, N.Madhupriya, Dimpal Sanghavi, Alpana Shukla and Ajai: Abstracts of ‘Geomatics 2010’ National Conference, Ahmedabad, 2010: “Study of Coral-Macro algal Competition using Remote sensing data”
- 8) Richa Tiwari, N. Madhupriya, Dimpal Sanghavi, Nandini Ray Chaudhary, Alpana Shukla and Ajai: Abstracts of ‘Geomatics 2010’ National Conference, Ahmedabad, 2010: “Human-induced habitat alteration: A case study from UAE coast using Resourcesat – I data”
- 9) Alpana Shukla, Manish Thaker, S.S. Manjul, and H.B.Chauhan: Abstracts of National Symposium, 2011, On ‘Evolving Paradigm to Improve productivity from Dynamic Management and Value Addition for Plant Genetic Resources’ “Statistical Analysis of Spectral Separability of Mangroves in Visible and Infrared Region: A Case Study in Tada Talav Village near Khambhat, Gujarat”, p-112
- 10) Alpana Shukla, V.N. Upasani: Abstracts of National Symposium, 2011, On ‘Evolving Paradigm to Improve productivity from Dynamic Management and Value Addition for Plant Genetic Resources’: “ Anti-microbial activity of *Annona squamosa* Linn., p-98
- 11) Alpana Shukla: ‘Mapping/Monitoring Of Grassland Using Multi Temporal Remotely Sensed Data- A case study in Banni, District Kachchh’: at GUJCOST sponsored one day seminar on “Climate Change Scenario: Past, Present and

Future.” Organised by Department of Biochemistry & Microbiology, M. G. Science Institute.

- 12) Alpana Shukla, Harsh Panchal, Mayank Mishra, P. R. Patel, H. S. Srivastava, Parul Patel, A. K. Shukla: Abstracts of ‘AGSE 2013’ International Conference, Cept University, Ahmedabad, 2013:”Soil Moisture Estimation Using Gravimetric Technique and FDR Probe Technique: A Comparative Analysis”

Publications of Sh. N.R. Mulia:

A record of tree wealth of M.G. Science Institute	Life Science Leaflet	143-147	5:2010	July
Biodiversity conservation through urban green spaces: a case study of Gujarat university campus in Ahmedabad	International Journal of Conservation Sciences	2067-533x	4(2):189-196	
Ecological investigations of Shahwadi wetland	International journal of pharmacy and life sciences	accepted	4(12)	
Floristic wealth of Kankaria lake region in Ahmedabad, Gujarat	Asian journal of conservation sciences (communicated under review)	communicated under review)		

- **Two Research Publications of Sh. D.K.Vaghela**
- **Book publications of Dr. N. R. Modi**

Sr.No.	Title	Publisher	Edition	Date
1	Jiv Vignan	Nirav	TWO	2007
2	Nirav Collage Vanaspati Shastra 101 Sem-1	Nirav	ONE	2012-13
3	Nirav Collage Vanaspati Shastra 202 Sem-3	Nirav	ONE	2012-13
4	Nirav Collage Botany-101	Nirav	ONE	2013
5	Nirav Collage Vanaspati Shastra 205 Sem-4	Nirav	ONE	2013
6	Nirav Collage Vanaspati Shastra 206 Sem-3	Nirav	ONE	2013
7	Jiv Vignan	B.S.Shah	TWO	2012
Book Chapters Translated:				
8	Science Textbook Std-6 Semester -1 Student’s Edition	Gujarat State School Textbook Board, Gandhinagar	ONE	2013
9	Science Textbook Std-6 Semester -1 Teacher’s Edition	Gujarat State School Textbook Board, Gandhinagar	ONE	2013
10	Science Textbook Std-6 Semester -2 Student’s Edition	Gujarat State School Textbook Board, Gandhinagar	ONE	2013
11	Science Textbook Std-6 Semester -2 Teacher’s Edition	Gujarat State School Textbook Board, Gandhinagar	ONE	2013

12	Science Textbook Std-7 Semester -1 Student's Edition	Gujarat State School Textbook Board, Gandhinagar	ONE	2013
13	Science Textbook Std-7 Semester -1 Teacher's Edition	Gujarat State School Textbook Board, Gandhinagar	ONE	2013
14	Science Textbook Std-7 Semester -2 Student's Edition	Gujarat State School Textbook Board, Gandhinagar	ONE	2013
15	Science Textbook Std-7 Semester -2 Teacher's Edition	Gujarat State School Textbook Board, Gandhinagar	ONE	2013
16	Science Textbook Std-8 Semester -1 Student's Edition	Gujarat State School Textbook Board, Gandhinagar	ONE	2013
17	Science Textbook Std-8 Semester -1 Teacher's Edition	Gujarat State School Textbook Board, Gandhinagar	ONE	2013
18	Science Textbook Std-8 Semester -2 Student's Edition	Gujarat State School Textbook Board, Gandhinagar	ONE	2013
19	Science Textbook Std-8 Semester -2 Teacher's Edition	Gujarat State School Textbook Board, Gandhinagar	ONE	2013

Research Publication of Dr. N.R. Modi

A record of tree wealth of M.G. Science Institute	Life Science Leaflet	143-147	5:2010
Biodiversity Conservation Through Urban Green Spaces: A Case Study OF Gujarat University Campus in Ahmedabad	International Journal Of Conservation Sciences	2067-533x	4(2):189-196
Ecological Investigations Of Shahwadi Wetland	International Journal Of Pharmacy And Life Sciences	Accepted	4(12)
Floristic Wealth Of Kankaria Lake Region In Ahmedabad, Gujarat	Asian Journal Of Conservation Sciences (Communicated Under Riview)	Communicated Under Riview)	
Application Of The Programming Languages 'C' And 'C++' In Teaching Taxonomy	Petlad Science	Accepted	

Research publications of Zankhana Rathod

1. O P Saxena Santoshkumar Singh and Zankhana Rathod 2007 In vivo and in vitro comparison of bioactive substances from Bacopa monnieri Centella asiatica and Convolvulus pluricaulis related to memory improvement In Biotechnology for Plant Improvement eds P C Trivedi Pointer Pub Jaipur India pp 213 22.
2. Zankhana Rathod Monika Christian and O P Saxena 2007 TLC screening of in vitro produced phytosterols of Clerodendron phlomidis L In Herbal Technology Recent Trends and Progress eds M Daniel Arun Arya and V M Raole Scientific Pub Jodhpur India pp171 174

3. Monika Christian Zankhana Rathod and O P Saxena 2007 In vitro produced flavonoids of *Boerhaavia diffusa* L In Herbal Technology Recent Trends and Progress eds M Daniel Arun Arya and V M Raole Scientific Pub Jodhpur India pp175 179
4. Zankhana Rathod and O P Saxena 2007 Biochemical profile of in vivo and in vitro produced *Bougainvillea spectabilis* L Indian J Plant Physiol Vol 12 No 3 pp 234 238
5. Zankhana Rathod Santoshkumar Singh and O P Saxena 2008 Micropropagation of *Encostemma littorale* Blume J of Indian Botanical Society Vol 87 1 and 2 pp 1 4
6. Santoshkumar Singh Zankhana Rathod and O P Saxena 2009 In vitro regeneration and production of saponins of *Bacopa monnieri* National Academy of Sci Lett Vol 32 No 3 and 4 pp 77 82
7. Santoshkumar Singh Zankhana Rathod and O P Saxena 2009 In vivo and in vitro Comparison of Phytosterols of *Bacopa monnieri* and *Centella asiatica* Well known Memory Enhancing Plants; J of Indian Botanical Society Vol 88 3 and 4 pp 82 85
8. O P Saxena Zankhana Rathod Santoshkumar Singh and H A Pandya 2010 Physiology of Floral Initiation A Review In Flower Retrospect and Prospect; Ed Y Vimala Scientific Publication Delhi Pg 124 149
9. Santoshkumar Singh, Zankhana Rathod and O. P. Saxena (2010): Multiple shoot regeneration from the callus culture of *Centella asiatica* under the influence of various concentrations of PGRs *Prajna - Journal of Pure and Applied Sciences*, 18: 18 – 20
10. O. P. Saxena, Zankhana Rathod, Santoshkumar Singh and M. Christian (2011) Micropropagation Of Selected Medicinally Useful Plants – A Mini Review, In *Advances in Botany Indian Botanical Society Commemoration Volume. 13*, 219-248
11. Santoshkumar Singh, Zankhana Rathod and O. P. Saxena (2012) Plantlet Regeneration From Leaf Explant Of *Convolvulus Pluricaulis* via Somatic Embryogenesis, *J. of Indian Botanical Society* 91(4) 2012, 01-04

Department of Chemistry

1. **Name of the Department:** Chemistry

2. **Year of Establishment:** 1946

3. **Names of Programmes / Courses offered**

- a. B. Sc. Chemistry, M. Sc. (Organic Chemistry)
- b. COP (Chem-informatics)
- c. Ph. D. in Chemistry

4. **Names of Interdisciplinary courses and the departments/units involved:**

The Chemistry department and the vocational cell work hand in hand for the vocational COP (Chem-informatics) course.

IGNOU (B. D. P.) course is run by the department.

5. **Annual/ semester/choice based credit system (programme wise):**

The department has been following the University pattern from the year of establishment. All the six semesters are run by semester system as the University has introduced the CBCS structure from 2011 onwards.

6. **Participation of the department in the courses offered by other departments:**

NA

7. **Courses in collaboration with other universities, industries, foreign institutions, etc.**

- UGC COP (Chem-informatics)
- IGNOU (B. D. P.) course

8. **Details of courses/programmes discontinued (if any) with reasons:** None

9. **Number of Teaching posts:**

	Sanctioned	Filled
Professors	0	0
Associate Professors	14	14
Asst. Professors	1	1
Adhyapak Sahayaks	2	2

10. **Faculty profile with name, qualification, designation, specialization,**

(D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialization	Exp/ Years	No. of Ph. D. students guided
Dr. SNZala	M. Sc., Ph.D. B.Ed. LLB	Assoc. Prof & Head	Organic	25	-

Prof. S H Patel	M. Sc.	Assoc. Prof & PG. Prof. In Charge	Organic	23	-
Dr. R D Shah	M. Sc., Ph.D.	Assoc. Prof	Organic	19	-
Dr. J J Vora	M. Sc., Ph.D.	Assoc. Prof	Inorganic/ Organic	23	-
Dr. P K Patel	M. Sc., Ph.D.	Assoc. Prof	Analytical and Organic	26	3
Prof. D I Prajapati	M. Sc., B.Ed.	Assoc. Prof	Inorganic	16	-
Prof. C C Rathod	M. Sc., B.Ed.	Assoc. Prof	Organic	16	-
Dr J H Parikh	M. Sc., Ph.D.	Assoc. Prof	Organic	23	-
Prof. R K Patel	M. Sc.	Assoc. Prof	Physical	17	-
Dr. B B Baldaniya	M. Sc., Ph.D.	Assoc. Prof	Organic	16	-
Prof. P J Patel	M. Sc.	Assoc. Prof	Organic	22	-
Prof. J S Makwana	M. Sc.	Assoc. Prof	Inorganic/ Organic	17	-
Prof. N M Shah	M. Sc.	Assist. Prof	Organic		-
Dr. J C Patel	M. Sc., Ph.D.	Assoc. Prof	Organic	17	-
Prof. J K Desai	M. Sc.	Assoc. Prof	Organic	22	-
Dr. N N Chudasama	M. Sc., Ph.D.	Adhyapak sahayak	Organic	4	-
Dr. N K Chavda	M. Sc., Ph.D.	Adhyapak sahayak	Inorganic	3	-

11. List of senior visiting faculty:

List of visiting faculties especially for PG department:

Dr. Usha Pal, Dr. Y M Vaidya, Prof. H A Dixit, Prof. B R Desai and Prof. H N Chauhan

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

NA

13. Student -Teacher Ratio (programme wise):

The current teacher student ration is FY (22:1); SY (30:1); TY (12:1)

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

There are four Lab Assistants, one laboratory peon, one gas mechanic (who also works as store keeper), (one adhoc Lab Assistant, five adhoc peons)

15. Qualifications of teaching faculty with D.Sc./ D.Litt./ Ph.D/ M.Phil./PG.:

Currently nine faculty members are doctorate degree, four are pursuing doctorate degree and four faculty members are Ph.D. guide

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

Name of the Faculty	Type	Title of the Project	Amount	Funding Agency
Dr. J. H. Parikh	Minor	Biodegradation of synthetic dyes by local species of white rot U.G.C47-01/2007	48,000/-	UGC
Dr. J. H. Parikh	Major	“Biodegradation of Reactive Dyes Used in Textile Industries by macro fungi.” U.G.C.37-507/2009	4,60,000/-	UGC
Dr. Rina D. Shah	Minor	1. ‘Studies of Phase Transfer Catalysis in the synthesis of aminoheterocycles by Thorpe Cyclization’ 2. Zero OPC concrete Product	90,000/- 2,14,000/-	UGC GUJCOST
Dr. P. K. Patel	Minor	“A Green way of corrosion Inhibition of Aluminium in Alkaline media”.	80,000/-	UGC
Dr. J. J. Vora	Minor	“Analytical method development and Validation of some Anti-cancer drug” doses forms	75,000/-	UGC
Dr. B. B. Baldaniya	Minor	“Synthesis and characterization of some new bioactive molecules”	90,000/-	UGC

17. Departmental projects funded by DST, DST-FIST; UGC, DBT, ICSSR, etc. and total grants received:

- Dr. J. H. Parikh has received a grant of Rs 4,60,000/- in 2009-13 for a major research project and 48,000/- for minor research project from UGC.
- Dr. Rina D.Shah has received a grant of Rs 90,000 in 2008-09 from UGC and 2,14,000/- in 2005-08 from GUJCOST for a minor research projects.
- Dr. P. K. Patel has received a grant of Rs 80,000 in 2007-08 for a minor research project from UGC.
- Dr. J. J. Vora has received a grant of Rs 75,000 in 2007-08 for a minor research project from UGC.
- Dr. B. B. Baldaniya has received a grant of Rs 90,000 in 2007-08 for a minor research project from UGC.
- Dr J. J. Vora (co-ordinator) and other chemistry staff members and students of different departments have completed soil testing of more than 32859 samples from Ahmedabad and Surendranagar district under the project of “Soil Testing Project / Soil Health Card” funded 24 lakhs given by the Government of Gujarat during 2009-2013.

18. Research Centre /facility recognized by the University:

We have organic synthesis laboratory for research activity. We also have instrument lab having FTIR, UV spectrophotometer and Digital melting point apparatus. It has a research infrastructure that is open for the faculty. Several faculty of the College from Chemistry have completed/pursuing their Ph.D. The faculties who have benefited for research from the department of Chemistry are Dr. S. N. Zala, Dr. R. D. Shah, Dr. J. H. Parikh, Dr. B. B. Baldaniya, Dr. J. J. Vora, Dr. P. K. Patel, Prof. D. I. Prajapati, Prof. J. K. Desai and Prof. P. J. Patel.

19. **Publication:** List is given at the end of the document

20. **Areas of consultancy and income generated:** NA

21. Faculty as members in**c) National committees b) International Committees c) Editorial Boards**

- Dr. S. N. Zala is a member of the **Board of Studies and exam committee** (Chemistry, Gujarat University).
- Three other faculty members of the department of Chemistry Dr. J. J. Vora, Dr. Rina Shah, Dr P. K. Patel and Prof. D. I. Prajapati have contributed in syllabus preparation/modifications for Gujarat University.
- Dr. B. B. Baldaniya, Dr. J. H. Parikh, Dr. S. N. Zala and Dr. Rina Shah and Dr. J. C. Patel are life members of ACTI [The Association of Chemical Technologists (India)].
- Dr. J. C. Patel is a Life Member of Indian Chemical society, Kolkatta, since 2000.

Dr. P. K. Patel, as member of following different societies.

Sr. No.	Organization	Type of membership	Date
1	Indian Chemical Society, Kolkatta.	Fellow F/3375	04/1991
2	Institution of Chemists, Kolkatta.	Life Fellow LF/4922	05/2000
3	Indian Council of Chemists, Agra.	Life Fellow LF/705	07/2003
4	The Society for Advancement of Electrochemical Science and Technology (SAEST)	Life Fellow LF/670	08/2008

Dr. J. H. Parikh is a member of following different societies

Sr. No.	Organization	Type of membership	Position
1	Associate Membership in International Congress of Chemistry & Environment Indore	Lifetime No. : LF/P-16	Member
2	Membership in Indian Science Congress Association, Calcutta	Lifetime No.: L-9741	Member

22. Student projects

Percentage of students who have done in-house projects including inter-departmental/programme:

- All 30 M. Sc. Sem IV (2011-12) students and 30 M. Sc. Sem IV(2013-14) students have completed their dissertation and industrial training as a part of their Gujarat University syllabus requirements.

Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/other agencies:

- All 30 M. Sc. Sem IV (2011-12) students and 30 M. Sc. Sem IV (2013-14) students have completed their industrial training in various chemical based industries.

23. Awards/ Recognitions received by faculty and students;

- Top rankers of each year, viz. FY, SY and TY, have been awarded merit certificates for excellence in the subject.
- One of the students Mr. Kunal Shah received first prize in Science Excellence, Gujarat University, 2011.

24. List of eminent academicians and scientists/ visitors to the department

- Dr. D. O. Shah (Florida University, USA, Director, Shah Sulman Centre, DDU)
- Dr. Jignesh Dalal (M. D., Pediatric Haematologist Bone marrow transplant surgeon , Kansas, USA)
- Dr. Unnat Pandit (AGM, Calida Pharma)
- Dr. Bhagyesh Zha (Secretary sports, youth services and cultural development, Gujarat Government)
- Shri Parth Sarathy (Chartered of Science, Retired IAS officer)
- Dr. Ketan Shah and Dr. Ms. Anshul from the Apollo Hospital
- Prof. S. K. Menon (Rtd. Head of Dept. of Chemistry, Gujarat University)
- Prof. K. H. Chikhaliya (Dept. of Chemistry, Gujarat University)
- Prof. U. C. Pandey (Rtd. Head of Dept. of Chemistry, Gujarat University)
- Dr. J. J. Vora (Head of Dept of Chemistry, North Gujarat University)
- Dr. M. T. Chhabria (Principal, L M College of Pharmacy)
- Dr. Alok Dhavan (Director, Life Science Department, Ahmedabad University)
- Dr. Umesh Tarpada (Govt. Science College, Gandhinagar).
- Dr. Harshad Shah (Vice Chancellor, Children University, Gandhinagar)

25. Seminars/ Conferences/Workshops organized & the source of funding

- a) **National** : Nil
- b) **International**: Nil
- c) **State Level**: Chemistry Department organized two day State level Seminar on 'Frontier Advances in Chemical Sciences' funded by UGC, 25-26 March, 2008.
- d) **Regional** : The Chemistry department organized a one day seminar on 31st Dec 2011 to celebrate the International Year of Chemistry 2011.
- e) **Conference**: Chemistry department organized a conference, 'Chemistry Teachers Association' on 6th March 2011
- f) **Workshop** : Chemistry department organized Library workshop for the orientation of reference book for the students, Nov 2009

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			M	F	
BSc Sem I	4503	661	332	329	
BSc Sem III	661	373	187	186	
BSc Sem V	373	197	121	76	
M.Sc. Sem I					
M.Sc. Sem III					

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
BSc Sem II	93.65%	6.35%	-
BSc Sem IV	93.60%	6.21%	0.19%
BSc Sem VI	89.74%	10.26%	-
M.Sc. Sem II	100%	-	-
M.Sc. Sem IV	100%	-	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? 02

29. Student progression

Student progression	Against % enrolled
UG to PG	70%
PG to M.Phil.	--
PG to Ph.D.	--
Ph.D. to Post-Doctoral	--
Employed Campus selection Other than campus recruitment	10/185 Many Students
Entrepreneurship/Self-employment	Many student

30. Details of Infrastructural facilities

a) Library:

The departmental library has 360 books. The rest in central library has **more than 2000** books.

b) Internet facilities for Staff & Students:

The department has an internet facility and Wi-Fi accessibility. The students can avail internet facility for referencing in the COP laboratory.

c) Class rooms with ICT facility:

The department owns a portable LCD projector, which enables the faculty and students to give power point presentations for teaching and seminars respectively. Department also has an OHP.

d) Laboratories:

Five laboratories : Intake capacity is 390 students

One Instrumentation Laboratory for the research work.

31. Number of students receiving financial assistance from college, university, government or other agencies:-

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts:

- Fourteen popular lectures were arranged
- Study tour / Industrial visit
- UG and PG seminars/assignments
- IYC 2011
- Chemistry Teachers Association meetings
- Orientation of experiences of the industry by past students

33. Teaching methods adopted to improve student learning:

In addition to regular classroom blackboard teaching method, the use of LCD/OHP/seminars/study tours/industrial trainings/ competitions/popular lectures/ assignments /question paper solving etc. are used to improve student learning.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

- Lt. B. B. Baldaniya is engaged with NCC activities and is connected with following organizations

Sr. No.	Self /	Activity	Place	Date
1	1-Gujarat Naval Unit Ahmedabad NCC, Naval	As ANO'S To encourage and motivate youth	Ahmedabad HQ	From 2001 onwards
2	Employment Center Government of Gujarat	To provide training class for join Indian Navy	M. G. Science Institute	2011

- Prof. R. K. Patel is associated with tree plantation activity. With the help of students he has planted more than 1000 trees.

35. SWOC analysis of the department and Future

Strength:

The department runs B. Sc. Chemistry, M. Sc. (Organic Chemistry) and COP (Chem-informatics) programmes. Also runs IGNOU BDP courses. Many faculty members are involved in research and four faculty members are research guide for Ph.D. programme.

Weakness:

Not having enough academic support staff.

Opportunities:

Gujarat is a thriving center for Chemical industry and more students can be trained to employ in these industries.

With the advanced infrastructure at the institute the faculty member can bring many more research projects for the benefits of students.

Challenges

There are challenges with regard to the advancement in technology in the field of organic chemistry. The teachers need to keep up to date with the latest trends in the field of Chemistry.

Best Practice

Soil Analysis:

This is a tripartite project in which the govt. of Gujarat, teachers and students work for the benefit of society. The Agricultural Department, Govt. Of Gujarat approached the institute and offered to carry out the project on "Soil Analysis". The Institute took keen interest in the project as it gave the opportunity to work for the project that has a noble aim. The students of the various departments were invited to take part in this project. The students were selected on the basis of merit and their interest. The selected students were sent for the training at Soil Analysis Laboratory at Gandhinagar. The students and teachers were trained and imparted training in the method of soil analysis. They were provided with the

technical know-how about this project. The knowledge gathered was put into practice in the laboratory of our institute. The Students were allotted the samples for the soil analysis. They analyzed the soil samples gathered from the different parts of Gujarat under the supervision of the Professors. The students analyzed for the different five parameters of the soil viz. pH, Electrical Conductance (EC), Organic carbon, Phosphorus and Potassium.

19. Publications: Books

Dr. Jatin H. Parikh

Books:

Sr.No.	Title	Publisher	Edition	Date
1.	Some Aspects of Water and Wastewater Treatment	Lab Lambert Academic Publishing GmbH & CO. KG, Germany	First	October-2011

Dr S N Zala:

Publication:

- Shailesh Zala, Synthesis, physicochemical and biological activity studies of ion-exchange resin derived from melamine and phenylenediamine with formaldehyde, Journal of Chemical and Pharmaceutical Research, **2013, 5(2):122-130**

Presentation and carrier advancement:

- 1) Participated in the **National Seminar on “Emerging Trends in Forensic Science”** organized jointly by Department of Chemistry, School of Sciences, Gujarat University, Ahmedabad and Directorate of Forensic Sciences, Gujarat State, Gandhinagar, during 27th and 28th April, 2008.
- 2) Attended symposium on **“Prospective roles of Nanoscience and Technology in the Industrial development of Gujarat”** on 9/01/08 organized by Department of Chemical Engineering, Faculty of Technology, Dharmasinh Desai University, Nadiad.
- 3) Attended the **“Teachers’ Training Camp”** organized by Higher Education Department Gandhinagar Gujarat State, at Ambaji held on 18th and 19th February 2008.
- 4) Attended the **National Seminar on “ National Commission Recommendations and their Impact on Bharat”** organized by Gujarat University, Dr Babasaheb Ambedkar Open University and Shikshan Sanskriti Utthan Nyas at Ahmedabad on August 9th 2008
- 5) Participated in the GUJCOST sponsored state level one day seminar on **“Emerging Trends in Chemical Sciences”** on September 27, 2008 organised by C.U.Shah Science college, Ahmedabad.

- 6) Participated in the seminar on **“Intellectual Property Rights”** at Department of Botany, USSC, Gujarat University, Ahmedabad on 13th December 2008 organized by GUJCOST-IPR Cell, Gujarat University and Gujarat University Botanical Society (GUBS)
- 7) Participated in the two days Seminar on **“Recent Advances in Drug Design: Tools for New Drug Discovery”**, organized by Chemistry Department, L.M.College of Pharmacy, Ahmedabad, on 20th and 21st February, 2009
- 8) Participated in the U.G.C New Delhi and GUJCOST Gandhinagar Sponsored three day **International Conference on “Environmental Issues in Emerging and advanced Economies: Canada, India”** organized jointly by Department of Chemistry & James Reaney Canadian Centre, Gujarat University, Ahmadabad on 6th to 8th December 2009.
- 9) Participated in the three day **National level workshop on “Cheminformatics”** organized by the department of Biotechnology and the department of Bioinformatics, Christ College, Rajkot from 17thseptember to 19th September, 2009 at Christ College, Rajkot.
- 10) Participated in the **National Seminar on “Alternative Synthetic Strategies for Drugs and Drugs Intermediates”** organized by Institute of Pharmacy, Nirma University, Ahmedabad, heldon13th November, 2009.
- 11) Participated in the U.G.C. Sponsored **National Seminar Microbes@MGSc2010 “Current Trends in Microbiological Sciences”** organized by Department of Microbiology, M G Science Institute, Ahmadabad, held on23rd and 24th January 2010
- 12) Attended the workshop for preparation of **“BISAG Modules in Chemistry of Std XII”** for Karmyogi teachers training held at **Teachers’ Training Centre, S T T I Gandhinagar** from 4th to 6th January 2010, Gandhinagar.
- 13) Participated in the Gujarat State Biotechnology Mission Sponsored **National Conference MicrobesBT@MGSc2011 “Current Developments in Microbial Biotechnology”** organized by Department of Microbiology, M G Science Institute, at Ahmedabad Management Association (AMA) Ahmadabad held on 2nd January 2011.
- 14) Participated in the **“Industry-Academia Congregate-2011”**, organized by Department of Chemistry, School of Science, Gujarat University and The Association of Chemical Technologists-India, Ahmedabad, on January 22nd, 2011.

- 15) Participated in the Two day **National Conference on “Challenges to Chemical Sciences in Twenty First Century”** organized by the department of Chemistry, Hemchandracharya North Gujarat University, Patan on February 1st and 2nd, 2011.
- 16) Participated in the “xxv Gujarat Science Congress-2011 held at Gujarat Science city, Amdavad during 26 to 27 February.
- 17) Attended the “**Workshop on Curriculum for 5 year B Ed course**” organized by Indian Institute of Teachers Education (IITE) held on 4th January, 2011 at Children’s University, P.T.C Building, Sector-19, Gandhinagar.
- 18) Attended the “**Meeting on Curriculum for 5 year B Ed course in Chemistry subject**” organized by Indian Institute of Teachers Education (IITE) held on 10th January, 2011 at Children’s University, P.T.C Building, Sector-19, Gandhinagar.
- 19) Participated in the “**XXv–Gujarat Science Congress-2011**” organized by Gujarat Council of Science City & Gujarat Science Academy held on 26th to 27th March 2011 at Science City, Ahmadabad.
- 20) Participated in the **International Conference on “ Supramolecules and Nanomaterials Research and Applications”** organized by Department of Chemistry, Gujarat University & GUJCOST-Department of Science & Technology, Government of Gujarat, India, held on 6th to 8th February 2012.
- 21) Participated in the one day Seminar on “**Recent Trends and Challenges in Dyestuff Industries**”, organized by Department of Chemistry, B.K.M. Science College, Valsad held on 4th September, 2011.
- 22) Participated in Akhil Bhartiya Vidhyarthi Parishad organized state level two day Seminar “**PHARMA VISION 2020**”, on the theme “*Indian Pharmacist : Establishing identity of pharmacy profession*” held at Maliba Pharmacy college, Bardoli during 24-25 September, 2011 as Advisor –Organizing Committee.
- 23) Participated in a One Week “**Training and Capacity Building Programme in Chemistry**” organized by Knowledge Consortium of Gujarat and held at Ahmedabad Management Association from 31st October to 5th November 2011.
- 24) Worked as an **expert** in interview panel for lab Technician at Ayurveda Contraceptive Drug Research Institute (ACDRI) (Under C.C.R.A.S. Dept of AYUSH, Ministry of Health & Family Welfare, Govt. Of India) Meghaninagar, Ahmedabad on 20/07/ 2012.
- 25) Worked as a **subject expert** (CHEMISTRY) for the meeting of the selection committee for the interview for the post of **Assistant Professor** in Silvassa Institute of Higher Learning Dadra & Nagar Haveli, Ucca Sikshan Samiti, Silvassa on 3/07/

2013. (Appointed by Gujarat University)

- 26) Participated in GUJCOST sponsored one day Seminar on **“CLIMATE CHANGE SCENARIO: PAST, PRESENT AND FUTURE”** held at M G SCIENCE INSTITUTE, AMDAVAD on 10TH AUGUST, 2013 organized by dept of Biochemistry and Microbiology M G SCIENCE INSTITUTE.
- 27) Participated in Akhil Bhartiya Vidhyarthi Parishad organized state level two day Seminar **“PHARMA VISION 2020”**, on the theme *“Indian Pharmacist : Establishing identity of pharmacy profession”* held at Sarvjanik pharmacy college, Mehsana, during 28-28) September, 2013 as Advisor –Organizing Committee
- 28) Participated in U G C and GSBTM sponsored Two day Seminar on **“Biochemistry: A Science Beyond Compartmentalization”** held at M G L I, AMDAVAD on 20 AND 21TH December, 2013 organized by dept of Biochemistry, M G SCIENCE INSTITUTE, Amdavad.
- 29) Participated in two day Seminar on **“SHIKSHANMA BHARTIYA CHINTAN” (INDAIAN PHYLOSOPHY IN EDUCATION)** held at Children University, Gandhinagar 24 and 25TH January 2014 organized by Children University, Gandhinagar
- 30) Participated in the UGC sponsored State Level two days Seminar on **“Environment Education and Disaster Risk Management”**, organized by Botany Department, M.G.Science Institute, Ahmedabad, on 28th and 29th January, 2009.

Poster presentation

- Presented a poster entitled **“Studies on Synthesis of Anion Exchange Resins”** in the UGC sponsored State Level Seminar on **“Frontier Advances in Chemical Sciences”**, organized by Chemistry Department, M. G. Science Institute, Ahmedabad, on 25th and 26th March, 2008.
- Presented a poster entitled **“Application Of Resins in The Recovery Of Precious Metals”** in the UGC sponsored State Level Seminar on **“Recent Developments in Mineral Exploration Technology”**, organized by Geology Department, M. G. Science Institute, Ahmedabad, on 29th and 30th August, 2008.

Resource person:

- Talk on **“Environment and Resources”** topic as resource person in connection with Phone-in Counseling program through FM channel held at Gyan Vani, Ahmedabad on 25/10/2009 during 9.00 am-10.00am
- I have given introductory lecture at pharmacy seminar **“PHARMA VISION 2020”** at Pharmacy college Dharmaj on 12/09/2010.

- Worked as judge in the final city level debut competitions for municipal school teachers organized by Nagar Prathmik Shikshan Samiti. Ahmedabad on 22/12/2009.
- Worked as **subject expert** in interview panel for scientific assistant and lab technician at Forensic Science Laboratory Gandhinagar on 15th to 17th February 2010.
- I have worked as a member for the development of the course curriculum at Indian Institute of Teachers' Education (IITE) University, Gandhinagar.
- Appointed as a member in 'Chemistry Board of studies' in Gujarat University in 2013.
- Passed CCC+ exam with distinction marks (theory 43/50 and practical 41/50) on 20/1/2010 from SPIPA Ahmedabad.
- Appointed as a member for the course curriculum at IITE University, Gandhinagar.

Publications: Journals:

Dr. B B Baldaniya:

Publications:

1. **Baldaniya B. B. and Jotani M. M. (2013).** Crystal structure optimization, semi-empirical quantum chemical calculation and antibacterial activity of (4Z)-2-phenyl-4-(3,4,5-trimethoxybenzylidene)-1,3-oxazol-5(4H)-one, **Adv. Appl. Res.**, vol.5 No2(2013) pp135-140
2. **B.B. Baldaniya., N.C. Desai., M.T.Chhabaria., AmitDodia and Ajit M.Bhavsar.(2010)** Synthesis characterization, anticancer activity and QSAR- studies of some new tetrahydropyrimidines, European journal medicinal chemistry, **Med.Che.Res medicinal chemistry research 4-november 2010 DOI: 10.1007/s00044-010-9481-4**
3. **Baldaniya B. B. & Jotani M. M. (2010)** (2Z)-Ethyl-2-(3-methoxy-4-acetyloxybenzylidene)-7-methyl-3-oxo-5-phenyl-2,3-dihydro- 5H-1, 3 thiazolo-[3, 2-a]pyrimidine-6-carboxylate. **Indian J. Phys. 84 (9) 1177-1182 (2010)**
4. **Baldaniya B. B. (2010)** .Synthesis, Characterization and biological activity of 5-arylidene-3-(6,7-dichloro-1,3-benzothiazol-2-yl)-2-phenyl-3,5-dihydro-4H-imidazol-4 ones. **E-Journal of Chemistry (2010) Vol- 7(1) 81-84**
5. **Baldaniya B. B., (2010)** .Synthesis of N^2 -(Aryl)- N^4, N^6 -bis (6, 7-dichloro-1, 3-benzothiazol-2-yl)- 1, 3, 5-triazine-2, 4, 6-triamines as biological potent agents. **E-Journal of Chemistry (2010) Vol- 7(1) 210-214**

6. **Baldaniya B. B., Jotani M. M. & Tiekink, E. R. T. (2010).** 4-{{(4Z)-5-Oxo-2-phenyl-4,5-dihydro-1,3-oxazol-4-ylidene}methyl}phenyl acetate **Acta Cryst. E66(5), o1175. doi:10.1107/S1600536810004911**
7. **Baldaniya B. B., Jotani M. M., & Tiekink, E. R. T. (2010).** N-(2-Oxo-2H-chromen-3-yl)benzamide **Acta Cryst. E66(4), o778. doi:10.1107/S1600536810008275**
8. **Baldaniya B. B., Jotani M. M. & Tiekink, E. R. T. (2010).** (2Z)-Ethyl 2-(2-acetoxybenzylidene)-7-methyl-3-oxo-5-phenyl-2,3-dihydro-5H-1,3-thiazolo-[3,2-a]pyrimidine-6-carboxylate. **Acta Cryst. E66(3), o762-o763. doi:10.1107/S1600536810007853**
9. **Baldaniya B. B., Jotani M. M., & Jasinski J. P. (2010).** (2Z)-Ethyl 2-(4-methoxybenzylidene)-7-methyl-3-oxo-5-phenyl-2,3-dihydro-5H-1,3-thiazolo-[3,2-a]pyrimidine-6-carboxylate. **Acta Cryst. E66(3), o599-o600. doi:10.1107/S1600536810004812**
10. **Baldaniya B. B., Jotani M. M. & Jasinski J. P. (2009).** Crystal Structure of Ethyl (2Z, 5R)-2-benzylidene-7-methyl-3-oxo-5-phenyl-2,3-dihydro-5H-[1,3]thiazolo [3,2-a] pyrimidine-6-carboxylate. **Journal of Chemical Crystallography, 39 (12), 898- 901. DOI 10.1007/s10870-009-9587-z**
11. **Baldaniya B. B. (2009).** Synthesis, antibacterial and antifungal activities of s-triazine derivatives, **E-Journal of Chemistry (2009) Vol- 6(3) 673-680**
12. **B.B. Baldaniya., N.C. Desai., (2009).** Synthesis and Antimicrobial Activity of 5-Imidazolinone Derivatives. **Indian j. Pharm. Sci., 2009, 71 (1): 90-94**
13. **Baldaniya B. B., Jotani M. M. (2008).** Crystal structure of Ethyl (2Z) 2-(4-acetyloxybenzylidene)-7methyl-3-oxo-5-phenyl-2,3-dihydro-5H-[1,3]-thiazolo[3,2-a] pyrimidine-6-carboxylate. **Analytical science (2008) vol-24, The Japan Society for Analytical Science.**
14. **Baldaniya B. B., Jotani M. M. (2008).** Crystal structure of (4Z)-2-phenyl-4-(3,4,5-trimethoxybenzylidene)-1,3-oxazol-5(4H)-one. **Japan XXI Congress of the International Union of Crystallography. IUCr August 24 – 25, 2008 Osaka, Japan**
15. **Baldaniya B. B., Jotani M. M. (2008).** Ethyl 2-[(Z)2-[3-chlorobenzylidene]-7-methyl-3-oxo-5-phenyl-2,3-dihydro-5H-1,3-thiazolo [3,2-a] pyrimidine-6-carboxylate. **Acta Cryst.(2008).E-64, o739**
16. **Baldaniya B. B., Jotani M. M. (2007).** Ethyl (2Z) 2-(2-chlorobenzylidene)-7-methyl-3-oxo-5-phenyl-2,3-dihydro-5H-1,3-thiazolo [3,2-a] pyrimidine-6-carboxylate. **Acta Cryst.(2007).E-63, o1937- o1939.**

17. **Baldaniya B. B., Jotani M. M. (2006).** (2Z)-Ethyl 2-(4-chlorobenzylidene)-7-methyl-3-oxo-5-phenyl-2,3-dihydro-5h-1,3-thiazolo [3,2-a] pyrimidine-6-carboxylate. **Acta Cryst.(2006).E-62, o5871- o5873.**
18. **B.B. Baldaniya., N.C. Desai., (2006).** Synthesis of Ethyl 4-{{4-isonicotinoylhydrazino)-6-(aryl amino)-1, 3, 5-triazin-2-yl] amino} benzoates as biological potent agents. **Indian Journal of Chemistry, Section_B, 9th, May, 2006**

Presentation and carrier advancement:

1. The research paper entitled “X-ray analysis, Semi-empirical Quantum Chemical Calculation and Anti-inflammatory activity of 2,4,5-Trichloroacetanilide” by M. M. Jotani & **B. B. Baldaniya** has been presented in National Conference on Recent Trends in Chemical and Biological Sciences (NCRTCBS-2010) **during 30-31 March 2010 at Kuvempu University, Jnana Sahyadri, Shankarghatta, 577451, Karnataka, India.**
2. Participated in the “XXIV- Gujarat Science Congress-2010” Jointly organized by **Gujarat Uni. & Gujarat Science Academy, Ahmedabad, on March 21st, 2010.**
3. Participated in “workshop on Data Analysis Using MS-Excel” **Organized by Statistics Dept M.G. Science Institute at Ahmedabad, Gujarat, Sponsored by DBT on 8th March, 2010**
4. Attended the “One Day Conference on COLOURATION science and technology by 2015-Textile Dyes & Intermediates” **organized by ACTI on 6th March, 2010**
5. Participated in “ Applications of Spectroscopic techniques in Chemistry” **Organized by M.G. Panchal Science college at Pilvai, Gujarat, Sponsored by UGC on 23, February 2010**
6. Participated in the “International Conference on Environmental Issues in Emerging and advanced Economies: Canada, India” **Organized jointly by Department of Chemistry and James Reaney Canadian Centre, Gujarat University, Ahmedabad, during December 6-8, 2009.**
7. Participate one day training of Nodal Professor on Red Ribbon Program by Gujarat State AIDS Control Society on **15th September, 2009**
8. Participate in workshop on “Teacher Training Program in Bioinformatics” M G Science Institute Microbiology department, **by DBT on 21st November, 2009.**
9. Participate in the seminar “Recent Advance in Drug Design tool for New Drug Discovery” at L M College of Pharmacy on **20-21 February, 2009.**

10. The research papers entitled “C-H...O,C-H... π and π - π stacking interactions in some thiazolo [3,2-a] pyrimidine derivatives” by M. M. Jotani & **B. B. Baldaniya** & J. P. Jasinski and Crystal Structure of 7-(4-bromophenyl)-9-phenyl-7H-pyrrolo[3,2- e] tetrazolo[1,5-c] pyrimidine by M. M. Jotani & **B. B. Baldaniya** , J. P. Jasinski & R. J. Butcher have been presented in XXXVIII National Seminar on Crystallography (NSC-2009) during **11-14 February 2009 at Dos in Geology, University of Mysore, Mysore, India.**
11. The research paper entitled “Crystal Structure of (4Z)-2-phenyl-4-(3,4,5-trimethoxybenzylidene)-1,3-oxazol-5(4H)-one” by M. M. Jotani & **B. B. Baldaniya** has been presented in XXI Congress of the International Union of Crystallography, **at Osaka, Japan during August 23-31, 2008.**
12. Oral presented entitled “Synthesis, Anticancer Activity and Characterizations by X-Ray Diffraction of some new Thiazolopyrimidines” state level seminar UGC **at M G Science college, Ahmedabad 2008.**
13. Participated in workshop “Workshop on Copyright” **at Bhavnagar, Sponsored by HRD New Delhi.**
14. Participated in national seminar “Developing Volunteers for Disaster preparedness” at K. K. Shah Science College, **Organized by National Environmental Science Academy (NESA), New Delhi.**
15. Participated in “One Day Workshop on Patent Awareness” **at Bhavnagar, Sponsored by Department of Science and Technology Govt. of India, New Delhi.**
16. Participated in the XX-Gujarat Science Congress-2006. Jointly organized by **Gujarat Uni. & Gujarat Science Academy, Ahmedabad.**
17. Participated in national seminar “Changing Profiles of Ahmedabad: 19th and 20th century” **at St. Xavier’s College, Ahmedabad. Organized by UGC & ICHR.**
18. Participated the service as judge for evaluating the science projects in the Western India State Level Science fair held at Science City, Ahmedabad, on 3/12/2007
19. Participated The service as judge for evaluating the science projects in the District Level Science fair held at Pooja High School, Ahmedabad, on 14/10/2008
20. Participated The service as judge for evaluating the science projects in the District Level Science fair held at Amrut High School, Cantonment, Ahmedabad, on 24/10/2007
21. Participated The service as judge for evaluating the science projects in the District Level Science fair held at St. Xaviers High School, Hansol, Ahmedabad, on 9/10/2007

Dr. Rina D. Shah:

Publications:

1. **Rina D. Shah** and Nirmal Desai; An improved Synthesis and efficient chemoselective reduction of fused tetrazolopyrimidines under phase transfer conditions, *Synthesis* 19, 3275(2006)
2. **Rina D. Shah** and Nirmal Desai, Thorpe Cyclization in the synthesis of pyrazole using phase transfer condition, *Synthetic Commun.*, 38, 316-327(2008).
3. Mukesh M. Jotani, **Rina D. Shah**, Jerry P. Jasinski and Ray J. Butcher; 7-(4-Bromophenyl)-9-phenyl-7H-pyrrolo[3,2- e]tetrazolo[1,5-c]pyrimidine, *Acta Cryst. E66*, o574(2010)
4. **Rina D. Shah**, Mukesh M. Jotani and Jerry P. Jasinski; 7-(4-Chlorophenyl)-9-phenyl-7H-pyrrolo[3,2-e]tetrazolo[1,5-c]pyrimidine; *Acta Cryst. E66*, o601–o602(2010).
5. Mukesh M. Jotani, **Rina D. Shah** and Jerry P. Jasinski; 7-(4-Methoxyphenyl)-5-methyl-9-phenyl-7Hpyrrolo[2,3 :4,5]pyrimido[1,6- d]tetrazole; *Acta Cryst.E66*, o212–o213 (2010). ISSN 1600-5368
6. **Rina D. Shah**, PTC Assisted Nucleophilic displacements in pyrrolopyrimidines in *Chemistry of sustainable products*, **19**,321 (2010)
7. **Rina D. Shah**, A comparative Studies on 3-aminothiophenes using PTC in *EJChem*, **8(1)**, 368 (2010)
8. **Rina D. Shah**, Mukesh M. Jotani and Edward R. T. Tiekink; 12-(4-Chlorophenyl)-7-methyl-10-phenyl-3,4,5,6,8,10-hexaazatricyclo[7.3.0.02,6]dodeca-1(9),2,4,7,11-pentaene; *Acta Cryst. (2010)*. E66, o3305
9. Mukesh M. Jotani, **Rina D. Shah** and Edward R. T. Tiekink ;12-(4-Methoxyphenyl)-10-phenyl-3,4,5,6,8,10-hexaazatricyclo[7.3.0.02,6]dodeca-1(9),2,4,7,11-pentaene; *Acta Cryst. (2010)*. E66

Presentation and carrier advancement:

1. Presented **Oral Paper in International conference held in MD, USA**, 13th Green Chemistry and Engineering Conference on Green pathways for the synthesis and ring cleavage of tetrazolopyrrolopyrimidines using eco friendly phase transfer catalysis during 23-25th June 2009.
2. Presented **Oral Paper in International conference held in Ahmedabad**, India, India-Canada Conference on Nucleophilic Displacements in fused pyrrolopyrimidines using eco friendly phase transfer catalysis during 6-8th January, 2010.

3. Presented **Poster Paper in International conference held in Ahmedabad**, India, India Conference on PTC Assisted Ring Cleavage of Some Nitrogen heterocycles to Pyrimidines of Synthetic Importance during 6-8th February, 2012.
4. **Presented Poster paper** in the National conference organized by North Gujarat University, held at Patan, India in January 2011.
5. **Presented Award paper** in one days UGC sponsored state level seminar, organized at Kadi Science College in February 2008 and won the prize.
6. **Presented two papers** in two days UGC sponsored state level seminar, on 'Frontier advances in chemical sciences' organized at M. G. Science Institute, Ahmedabad in March 2008.
7. **Presented a paper** in two days UGC sponsored state level seminar on 'Environment and disaster risk management' organized at M. G. Science Institute, Ahmedabad in January 2009.
8. Attended AICTE Sponsored one day work shop on "Environment and pollution awareness with particular reference to pharmaceutical industries" at NIRMA UNIVERSITY, Sep 2004
9. Attended UGC sponsored 2 days National seminar on 'Organic reactions and mechanisms' at Saurashtra University 2004
10. Attended UGC sponsored 2 days National level seminar on 'Supramolecular assemblies nanotechnology and nanomedicines' at NIRMA UNIVERSITY, March 2006
11. XX Science Congress at Gujarat university, March 2006
12. AICTE Sponsored one day work shop on "Environment and pollution awareness" at Ahmedabad, Sep 2007.
13. Attended UGC sponsored 1 day National level seminar on 'Forensic Science' at Gujarat University, April 2008.
14. XX Science Congress at Gujarat university, March 2006
15. Attended one day seminar organized by CEE at M. G. Science Institute, Ahd, 2006.
16. Attended Gujcost sponsored 1 day state level seminar on 'Nanotechnology' at C U Shah science College, April 2008
17. Attended Gujcost sponsored 1 day state level seminar on 'Intellectual property rights' at Gujarat University, January 2009.
18. Attended two days seminar on 'Recent Advances in Drug Design: Tools for New Drug Discovery' at L. M. College of Pharmacy, Ahmedabad, February 2009.

19. Attended National seminar on 'An alternatives Synthetic Strategies for Drugs and Drug Intermediates, at Nirma University, Ahmedabad on 13 th Nov, 2009.
20. Attended state level UGC sponsored seminar at Pilwai science college, 2010.
21. Attended in National seminar 'Connection of industry and education in chemical sciences held at Palanpur during 2nd and 3rd February 2013.
22. Attended in National seminar 'Connection of industry and education in chemical sciences Organized by M. G. Science Institute held at Ahmedabad during 17th, 18th February 2013.
23. Attended Star DBT sponsored one day seminar organized by Biochemistry on 'Health and nutrition awareness' at M. G. Science Institute, Ahmedabad, on 23rd Feb 2013.
24. Attended National seminar on 'Health, yogie & Adapted Physical Education in various Disabilities' organized by Sports department at M. G. Science Institute, Ahmedabad, on 18, 19 Feb 2013.
25. Attended National seminar on 'Geomorphology and evaluation of landforms through time' organized by Geology department at M. G. Science Institute, Ahmedabad, on 8, 9 Mar 2013.
26. Attended National seminar on 'Biochemistry beyond compartmentalization' organized by Biochemistry department at M. G. Science Institute, Ahmedabad, on 20, 21 Dec 2013.
27. Participated as the service as judge for evaluating the science projects in the Gujcost sponsored State Level Competition for mathematics held at science city in Jan 2013 Ahmedabad.

Dr. Jwalant J. Vora.

Publications:

1. Analytical method validation of stability-indicating hplc method for determination of assay of memantine hydrochloride tablets, international journal of pharmacy practice & drug research, vol. 4 (1), 2014, xx-xx.
2. The corrosion and inhibition of copper and tin-lead alloy in acidic conditions, journal of Indian council of chemists, vol.29, no. 1 &2, 2012, pages:16-19.

Presentation and carrier advancement:

1. 31st Annual Conference of ICC, Dharwad, sponsored by Indian Council of Chemists, Dharwad National level on 28 to 30 November, 2013 (Poster presentation)
2. UGC sponsored & GSBTM Co-sponsored National seminar UGC, at M. G. Science

- Institute, Ahmedabad National 20th and 21st December, 2013 (**Title of Paper** : Spectroscopic characterization & antimicrobial studies of some novel complexes)
3. Current Trends in Application of Advanced Spectroscopic Techniques (Dabhoi) UGC State 1st, 2013
 4. Recent Advances in Industries and Chemical Education (Palanpur) UGC & GUJCOST National 2nd and 3rd February, 2013 (Oral presentation)
 5. National Research Paper Presentation Competition JJTU, Rajasthan National 6th January, 2013
 6. 31st Annual Conference of ICC, Rajkot Indian Council of Chemists, Rajkot (IP-38) National 26 to 28 December, 2012 (Poster presentation)
 7. Creating Excellence for Sustainable Society HNGU, Patan International 15th and 16th May, 2011 (Poster)
 8. Challenges to Chemical Sciences in Twenty First Century Dept. of Chemistry, Patan, North Gujarat National 1st & 2nd February, 2011 (Title of paper :Inhibition of Copper and Tin Alloy by Starch in Acidic Conditions)
 9. Industry-Academia Congregate-2011 Dept. of Chemistry Ahmedabad & ACTI State 22nd January, 2011
 10. xxiv Gujarat Science Congress 2010 Gujarat University & Gujarat Science Academy State 21st March, 2010
 11. Data Analysis Using Ms- Excel Recipient of Star Coll. Grant from DBT National 8th March, 2010
 12. Perspective of Analytical Chemistry on Curriculum Aspect K. K. Shah Maninagar Science Coll., Ahmedabad State 10th & 11th February, 2010
 13. Current Trends in Microbiological Sciences UGC National 23rd & 24th January, 2010
 14. Indian Council of Chemists U.G.C.,DST, GUJCOST National 07th to 10th November, 2009
 15. One Day Workshop on Quantum Mechanics PRL & Indian National Science Academy (Guj & Rajasthan Chapter) State 5th September, 2009 (Delivered a talk)
 16. Analytical Techniques for Biological and Chemical Sciences The Xavier. Research Foundation & St. Xavier. College State 1st & 2nd August, 2009
 17. Environment Education and Disaster Risk Management U.G.C. State 28th & 29th January, 2009
 18. National Seminar on Emerging Trends in Forensic Sciences Directorate of Forensic National Science 27th & 28th April, 2008

19. Intellectual Property Rights GUJCOST-IPR Cell State 13th December, 2008
20. Frontier Advances in Chemical Sciences U.G.C. **WORKED AS ORGANISING SECRETARY** State 25th & 26th March, 2008 (Title of paper : Study of some Novel Biological Active Schiff Bases)
21. Recent Trends and Future Challenges in Chemical Sciences U.G.C. State 28th February, 2008

Dr. J H Parikh:

Publications:

1. "Effect of Fe (III) and Cu (II) on performance of Calcium Carbonate Inhibitor". Chemical World Mumbai, PP.30-32, May 2002
2. "Cyanide Detoxification" – A novel approach Research Journal of Chemistry & environment, PP.71-72, vol. 6 (3) September 2002
3. "Removal of Fluoride ions from water" – A novel approach, Electrochemical Science and Technology, Chennai PP. B-97-99, November-2002
4. "Destruction of Organic Waste", Chemical Product Finder, Mumbai, PP. 62-64, April-2004
5. "Screening of fungal cultures for their dye degradation or decolorisation Ability", Research Journal of Chemistry and Environment, pp.56-59, vol16 (3) September-2012

Presentation and Career Advancement:

1. Presented poster paper on "Removal of Fluoride ions from water"- A novel approach in international conference on Electrochemical Science and Technology, Chennai.
2. Presented poster paper on "2-hydroxy-4-n-Butoxy-5-bromo Acetophenone Thio semicarbazone as an Extraction" Spectrophotometric Reagent for Nickle (II) in international conference in The Pittsburg Conference New Orleans, Louisiana, 70112 United States of America during 03-07 March-2008
3. Presented poster paper on " Study of Fungal Cultures for Their Ability to Textile Dyes and Their Use in Industrial Effluent Treatment" in international conference in Pittcon Conference & Expo. Pennsylvania convention Center Philadelphia PA, USA during 17th to 21st March 2013
4. Presented poster paper on "Study of Laccase Lignin peroxidase and manganese peroxidase in Selected Fungal culture" at the national seminar on "Biochemistry: A Science Beyond Compartmentalization" organized by the Department of Chemistry, M.G. Science Institute, Ahmedabad.

5. Science Excellence (SCIXL-2008) Botany Dept. Gujarat Uni., State conference, 5th Jan. 2008
6. Prospective roles of Nanoscience & technology in the Industrial development of Gujarat, Dharamsingh Desai University, Nadiad, State conference 9th jan.-2008
7. The Pittsburg Conference, New Orleans, Louisiana, 70112 United States of America, International conference, 03-07 March2008
8. Emerging Trends in Chemical Sciences, C.U.Shah Science College, Gujarat Uni. State conference, 27th September-2009
9. Recent Advances in Drug Design tools for new Drug Discovery, L.M. College of Pharmacy State conference 20-21 Feb.-2009
10. UPLC & Validation, Waters company, State conference, 11, September-2009
11. Teachers Training Programmed in Bioinformatics, M.G. Science Institute, Ahmedabad State conference, 21 November-2009
12. Environmental Issues in Emerging and Advanced Economies, Department of Chemistry, James Reaney Canadian Centre, International, 06, 07, 08 December-2009
13. Industry-Academia Congregate-2011, Department of Chemistry, Gujarat Uni. State conference, 22nd Jan.-2011
14. Cryptography @ Computer & Safety, C.U.Shah Science College, State conference 25 January- 2011
15. Workshop on “Technology Enhanced Learning (TEL)” M.G. Science Institute (DBT Star College Grant) State conference 22nd January 2012
16. Attended one week training programmed on research in chemistry organized by Knowledge Consortium of Gujarat at R.G. Shah Science college during 11-16 June - 2012
17. Workshop on “Assessment of Health Status Based on Body Composition” M.G. Science Institute (DBT Star College Grant) State conference 22nd February 2013
18. “Geomorphology-Evolution of Landforms through Time” M.G. Science Institute Ahmedabad. Gujarat, National conference 8th &9th March2013
19. Pittcon Conference &Expo., Pennsylvania convention Center Philadelphia PA, USA. International conference, 17th to 21st March-2013
20. Participated on “A Science Beyond Compartmentalization” in Biochemistry Department, M. G. Science Institute. Ahmedabad during 20-21 December-2013

D. I. Prajapati:

Presentation and Career Advancement:

1. National Seminar on “Alternative Synthetic Strategies for Drugs and Drug Intermediates” at Nirma University, Ahmedabad on 13th November, 2009.
2. Department of Biotechnology (Star College Scheme) New Delhi Sponsored Workshop on “Teachers Training Programme in Bioinformatics” at M.G. Science Institute, Ahmedabad on 21st November, 2009.
3. International Conference on Environmental Issues in Emerging and advanced Economies : Canada, India Organized jointly by Department of Chemistry and James Reaney Canadian Centre, Gujarat University, Ahmedabad on 6th to 8th December, 2009.
4. Department of Biotechnology New Delhi Sponsored Workshop on “Data Analysis Using MS – Excel” at M.G. Science Institute, Ahmedabad on 8th March 2010.
5. UGC Sponsored state – level Seminar on Applications of Spectroscopic Technique in Chemistry at Science College, Pilvai, Gujarat on 23rd February, 2010.
6. UGC Sponsored National – level Seminar on “Impact of Statistics on Science & Society” at M.G. Science Institute, Ahmedabad on 25th & 26th February, 2010.
7. Department of Biotechnology, New Delhi sponsored Workshop on “ Data analysis Using MS- Excel” at M.G. Science Institute, on 8th March, 2010.
8. The Association of Chemical Technologies – India and Department of Chemistry, Gujarat University, Ahmedabad sponsored seminar on “Industry – academia Congregate – 2011” on January 22nd, 2011.
9. UGC Sponsored State – level Seminar on “Cryptography @ Computer & Safety” Organized by C.U. Shah Science College Ahmedabad, on 25th January, 2011.
10. Department of Biotechnology, New Delhi sponsored Workshop on “Rational Drug Designing” at M.G. Science Institute, on 11th February, 2011.
11. UGC Sponsored National – level Seminar on “Climate changes : Issues, Challenges and Mitigation at I.V. Patel college of commerce, Nadiad on 26th February, 2011.
12. UGC Sponsored National – level Seminar on “ Chemistry : Contributions to well – being of mankind” at Pramukh Swami Science college, Kadi on 28 – February, 1- March, 2011. ICMR sponsored “one day Workshop on ICH – GCP Training” organized by Shivrath
13. Centre of Excellence in clinical research and Gujarat University, Ahmedabad on 6th August, 2011.
14. International Conference on “Supramolecules and Nanomaterials – research and

applications” organized by Department of Chemistry, Gujarat University & GUJCOST Department of Science & Technology, Government of Gujarat, INDIA held on 6-8th February, 2012.

15. DBT STAR COLLEGE SCSEME, in association with Classle knowledge pvt Ltd. Partners with NPTEL, Ministry of HRD organized workshop on “Technology Enhanced Learning” at M.G. Science Institute. Ahmedabad on 22nd January, 2013.
16. National level Seminar Sponsored by U.G.C. & GUJCOST on “RECENT ADVANCES IN INDUSTRIES & CHEMICAL EDUCATION” at science college, Palanpur on 2nd & 3rd, February, 2013
17. Presented a paper in National level Seminar Sponsored by U.G.C. on “Health, yogic & Adapted Physical Education in various Disabilities” at M. G. Science Institute, Ahmedabad on 18th & 19th February, 2013.
18. National level Seminar Sponsored by U. G. C. on “GEOMORPHOLOGY - EVOLUTION OF LANDFORMS THROUGH TIME” at M. G. Science Institute, Ahmedabad on 8th & 9th March. 2013.
19. GUJCOST Sponsored Seminar on “Climate Changes Science : Past, Present And Future” at M. G. Science Institute, Ahmedabad on 10th August. 2013.
20. Attended UGC sponsored national seminar on “ a science beyond compartmentalization “organized by M. G. Science institute, Ahmedabad on 20th & 21st December, 2013
21. Attend teacher’s Training & Capacity Building Programme organized by Knowledge Consortium of Gujarat (KCG), Department of Education, Gujarat state from 27th June, 2011 TO 2nd July, 2011.

J. K. Desai:

Presentation and Career Advancement:

1. UGC Sponsored state level seminar On “Environment education and disaster risk management on 28th & 29th January, 2009
2. National Seminar on “Alternative Synthetic Strategies for Drugs and Drug Intermediates” at Nirma University, Ahmedabad on 13th November, 2009.
3. International Conference on Environmental Issues in Emerging and advanced Economies: Canada, India Organized jointly by Department of Chemistry and James Reaney Canadian Centre, Gujarat University, Ahmedabad on 6th to 8th December, 2009.
4. UGC Sponsored National – level Seminar on “Impact of Statistics on Science & Society” at M.G. Science Institute, Ahmedabad on 25th & 26th February, 2010.

5. Department of Biotechnology, New Delhi sponsored Workshop on “Data analysis Using MS- Excel” at M.G. Science Institute, on 8th March, 2010.
6. The Association of Chemical Technologies – India and Department of Chemistry, Gujarat University, Ahmedabad sponsored seminar on “Industry – Academia Congregate – 2011” on January 22nd, 2011.
7. UGC Sponsored State – level Seminar on “Cryptography @ Computer & Safety” Organized by C.U. Shah Science College Ahmedabad, on 25th January, 2011.
8. Department of Biotechnology, New Delhi sponsored Workshop on “Rational Drug Designing” at M.G. Science Institute, on 11th February, 2011.
9. UGC Sponsored National – level Seminar on “Climate changes : Issues, Challenges and Mitigation at I.V. Patel college of commerce, Nadiad on 26th February, 2011.
10. UGC Sponsored National – level Seminar on “Chemistry : Contributions to well - being of mankind” at Pramukh Swami Science college, Kadi on 28 – February, 1- March, 2011.
11. International Conference on “Supramolecules and Nanomaterials – research and applications” organized by Department of Chemistry, Gujarat University & GUJCOST - Department of Science & Technology, Government of Gujarat, INDIA held on 6-8th February, 2012.
12. Attend teacher’s Training & Capacity Building Programme organized by Knowledge Consortium of Gujarat (KCG), Department of Education, Gujarat state from 4th June, 2012 TO 9th June, 2012.
13. Attended one week training programme on research in chemistry from 11th June to 16th June, 2012.
14. DBT STAR COLLEGE SCSEME, in association with classle knowledge pvt Ltd. Partners with NPTEL, Ministry of HRD organized workshop on “Technology Enhanced Learning” at M.G. Science Institute. Ahmedabad on 22nd January, 2013.
15. National level Seminar Sponsored by U.G.C. & GUJCOST on “Recent advances in industries & chemical education” at science college, Palanpur on 2nd & 3rd, February, 2013
16. Attended National level Seminar Sponsored by U.G.C. on Health, yogic & Adapted Physical Education in various Disabilities at M.G. Science Institute, Ahmedabad on 18th & 19th February, 2013.
17. One day workshop on Hands on training on chemo-informatics for chemical sciences faculties at V. V. Nagar, Anand on 30th, April, 2013
18. GUJCOST Sponsored Seminar on “Climate Changes Science : Past, Present and

Future” at M. G. Science Institute, Ahmedabad on 10th August, 2013.

19. Attended International conference on surface science & nanotechnology in biomedical at D.D.U., Nadiad on 10th to 12th December, 2013
20. Attended UGC sponsored national seminar on “A science beyond compartmentalization” organized by M.G. Science institute, Ahmedabad on 20th & 21st, December, 2013
21. Attended three day workshop on promotion of culture of quality through research organized by K.C.G. on 18th to 20th, January, 2014

Dr. Netal N Chudasama

Career advancement:

1. Attended three days international seminar on “**Supramolecules & Nanomaterials Research & Application**” sponsored by Guj. Uni. & Gujcost dept. Gov. of Guj.
2. Participated three days workshop ‘**Promotion of culture of quality through research**’ sponsored by KCG, Dept. of education Gov. of Guj.
3. Participated workshop on **Technology Enhanced Learning (TEL)** organized by M.G. Science Institute, Ahmedabad
4. Participated on workshop of “**Assessment of health based on body composition**”, organized by M.G. Science Institute, Ahmedabad
5. Attended two days national level seminar on “**Recent advances in industries & chemical education**” organized by R. R. Mehta college of science

Prof. J. S. Makwana :

Career advancement:

1. International Conference on Environmental issues in emerging and advanced economies at School of science Ahmedabad state level on 06/08/2009.
2. Teacher Training Programme at M.G. Science Institute Ahmedabad state level on 21/11/2009.
3. Data Analysis Using MS-Excel at M. G. Science Institute Ahmedabad state level on 08/03/2009.
4. Maths and Science Exhibition at St. Xavier’s School state level Ahmedabad on 07/10/2010.
5. Industrial Academia congregate at School of Science Ahmedabad state level on 22/01/2011.
6. Cryptography @ Computer & Safety at C. U. Shah Science College Ahmedabad state level on 25/01/2011.
7. Rotational Drug Designing at M.G. Science Institute Ahmedabad State level on

- 11/02/2011.
8. Climate Change at I. V. Patel College, Nadiad National level on 26/02/2011.
 9. Chemistry contributions to well being of mankind at Science College Kadi National on 28/03/2011
 10. Teacher Training Programme by Government of Gujarat State level on 02/07/2011
 11. Teacher Training & Capacity Building Programme by ICMR State level on 06/08/2011
 12. Technology Enhanced Learning at M. G. Science Institute State 22/01/2013
 13. Recent Advanced in Industries & Chemical Education at R. R. Mehta Science College Palanpur National level on 02/02/2013.
 14. Physical Education in various Disabilities at M. G. Science Institute National level on 02/02/2013
 15. Assessment of health based on body composition at M.G. science Institute State level on 2/02/2013
 16. Climate Change Scenario at M. G. Science Institute State level on 10/08/2013

Dr Jagruti C Patel

Presentation and Career advancement:

1. National Seminar on “Alternative Synthetic Strategies for Drugs and Drug Intermediates” at Nirma University, Ahmedabad on 13th November, 2009.
2. Department of Biotechnology New Delhi Sponsored Workshop on “Teachers Training Programme in Bioinformatics” at M.G. Science Institute, Ahmedabad on 21st November, 2009.
3. International Conference on Environmental Issues in Emerging and advanced Economies : Canada, India Organized jointly by Department of Chemistry and James Reaney Canadian Centre, Gujarat University, Ahmedabad on 6th to 8th December, 2009.
4. Department of Biotechnology New Delhi Sponsored Workshop on “Data Analysis Using MS – Excel” at M.G. Science Institute, Ahmedabad on 8th March 2010.
5. UGC Sponsored state – level Seminar on Applications of Spectroscopic Technique in Chemistry at Science College, Pilvai, Gujarat on 23rd February, 2010.
6. UGC Sponsored National – level Seminar on “Impact of Statistics on Science & Society” at M.G. Science Institute, Ahmedabad on 25th & 26th February, 2011
7. The Association of Chemical Technologies – India and Department of Chemistry, Gujarat University, Ahmedabad sponsored seminar on “Industry–Academia Congregate – 2011” on January 22nd, 2011.

8. UGC Sponsored State – level Seminar on “Cryptography @ Computer & Safety” Organized by C.U. Shah Science College Ahmedabad, on 25th January, 2011.
9. Department of Biotechnology, New Delhi sponsored Workshop on “Rational Drug Designing” at M.G. Science Institute, on 11th February, 2011.
10. UGC Sponsored National – level Seminar on “Chemistry : Contributions to well – being of mankind” at Pramukh Swami Science college, Kadi on 28 – February, 1- March, 2011.
11. International Conference on “Supramolecules and Nanomaterials – research and applications” organized by Department of Chemistry, Gujarat University & GUJCOST - Department of Science & Technology, Government of Gujarat, INDIA held on 6-8th February, 2012.
12. DBT Star College Scheme, in association with Classle knowledge pvt. Ltd. Partners with NPTEL, Ministry of HRD organized workshop on “Technology Enhanced Learning” at M.G. Science Institute. Ahmedabad on 22nd January, 2013.
13. National level Seminar Sponsored by U.G.C. & GUJCOST on “Recent Advances In Industries & Chemical Education” at science college, Palanpur on 2nd & 3rd, February, 2013
14. National level Seminar Sponsored by U.G.C. & GUJCOST on “Recent Advances In Industries & Chemical Education” at science college, Palanpur on 2nd & 3rd, February, 2013
15. Presented a paper in National level Seminar Sponsored by U.G.C. on Health, yogic & Adapted Physical Education in various Disabilities at M. G. Science Institute, Ahmedabad on 18th & 19th February, 2013.
16. National level Seminar Sponsored by U.G.C. on “Geomorphology - Evolution Of Landforms Through Time” at M. G. Science Institute, Ahmedabad on 8th & 9th March.2013.
17. GUJCOST Sponsored Seminar on “Climate Changes Science: Past, Present and Future” at M.G. Science Institute, Ahmedabad on 10th August. 2013.
18. Attended UGC sponsored national seminar on “a science beyond compartmentalization” organized by M.G. Science institute, Ahmedabad on 20th & 21st December, 2013
19. Attended teachers’ Training & Capacity Building Programme organized by Knowledge Consortium of Gujarat (KCG), Department of Education, Gujarat state from 27th June, 2011 TO 2nd July,2011.

Dr. Naimish K. Chavda.

Publications:

1. Synthesis and characterization of 5,10,15,20-tetra[(3,4-dimethoxy-6-nitro)phenyl] porphyrinatocopper(II), **Naimish Chavda**, Tushar Mehta and Manish Shah, Der Chemica Sinica, **2011**, 2 (1): 21-26.
2. Preparation and spectral study of 1-(3-bromo-4-hydroxy-5-methoxybenzylidene)-4-(4-bromophenyl) thiosemicarbazide and their transition metal complexes. Journal Of Chemistry and Pharmaceutical Research, Rakesh Tada, **Naimish Chavda**, Manish Shah.
3. Evaluation of stability constants of 1-(3-bromo-4-hydroxy-5-methoxy benzylidene) thiosemicarbazide (TRM-1) with copper (II), cobalt (II) and nickel (II) complexes by pH metric method Der Pharma Chemica, 2013, 5(4):244-251 Rakesh M. Tada*, Pankaj B. Nariya, **Naimish K. Chavda** and Manish K. Shah
4. Synthesis, characterization and antimicrobial study of newly Thiosemicarbazone Der Chemica Sinica, 2013, 4(4):36-42 Rakesh M. Tada, **Naimish K. Chavda**, Pankaj B. Nariya and Manish K. Shah*

Presentation and Career advancement:

1. Naimish K. Chavda, Rakesh M. Tada, Dr. Manish K. Shah; Synthesis and Characterization of 5,10,15,20-tetra[3,4-dimethoxy-6-nitrophenyl] porphyrinato Copper(II); 46 annual convention of chemists 2009 international conference on recent research trends in chemical sciences, 2-6 December, 2009, VIT university Vellore, Tamil Nadu.
2. Naimish K. Chavda, Dr. Manish K. Shah; Synthesis and Characterization of 5,10,15,20-tetra[4-hydroxy-3-methoxy(5-morpholinomethyl)phenyl] porphyrinato Copper(II); Indian Council of chemist 28th annual conference, 7-10 November, 2009, Department of Chemistry Hemchandracharya north Gujarat university Patan.
3. Naimish K. Chavda, Rakesh M. Tada, Dr. Manish K. Shah; Synthesis and Characterization of 5,10,15,20-tetra[4-hydroxy-3-methoxy(5(4-phenylpiperazin-1-yl-methyl) porphyrinatocopper(II); Indian Council of chemist XXIX annual conference, 19-21 December, 2010, Department of chemistry, Punjab university, Chandigarh.
4. Regional Workshop an approach to analytical instruments commonly used in chemical industries, 17 to 18 September, 2005, Department of Chemistry, Bhavnagar University Bhavnagar, India.

5. 11th CRSI National Symposium in Chemistry, 6 to 8 February, 2009, National Chemical Laboratory, Pune, India.
6. National Seminar on Nuclear Magnetic Resonance : Advances and Applications, 21 to 22 February 2009, Department of Chemistry, Faculty of Science The Maharaja Sayajirao University of Baroda Vadodara, India.
7. National Workshop on updates in process and medicinal chemistry, 3 to 4 March, 2009, Department of Chemistry Saurashtra University Rajkot, India.
8. National Conference on spectroscopy and stereochemistry 18 to 20 March, 2009, Department of Chemistry Saurashtra University Rajkot, India.
9. National workshop on patents and IPR related updates, 19 to 20 September, 2009 Department of Chemistry Saurashtra University Rajkot, India.
10. National seminar in “Emerging trends in polymer science and technology”, 8 to 10 October, 2009, Department of Chemistry, Saurashtra University Rajkot, India.
11. Indian Council of Chemistry 28th Annual Conference, 7 to 10 November, 2009, Department of Chemistry, Hemchandracharya North Gujarat University.
12. 46th Annual Convention of Chemists 2009, International Conference on Recent Trends in chemical Sciences, 2 to 6 December, 2009, VIT University Vellore Tamil Nadu, India.
13. International Seminar on Recent Development in Structure and Ligand Based Drug Design, 23rd December, 2009, Department of Chemistry Saurashtra University Rajkot, India.
14. Indian Council of Chemists XXIX Annual Conference, 19 to 21 December, 2010, Department of Chemistry, Panjab University, Chandigarh, India.
15. 15th ISCB International Conference, At Department of Chemistry, Saurashtra University, Rajkot (Gujarat, India) 4th - 7th February, 2011.
16. Technology Enhanced Learning (NPTEL) at M.G. Science Institute State level on 22/01/2013
17. Physical Education in various Disabilities at M.G. Science Institute National level On 18/02/2013
18. Assessment of health based on body composition at M. G. Science Institute State Level On 22/02/2013

Prof. N. M. Shah:

Career advancement:

1. Emerging Trends in Chemical Science, sponsored by GUJCOST State level, on 27-9-2008.

2. International conference on Environmental issues in “Emerging and Advanced Economies” Sponsored by UGC International level, on 8/12/2009.
3. International conference on “Supramolecules and Nanomaterials – Research and Applications” sponsored by DST International level, on 8/02/2012.
4. Chemistry: Contributions to well-being of Mankind sponsored by UGC National level, on 28/01/2011.
5. Recent Advances in Industries and Chemical Education sponsored by UGC and **GUJCOST National level, on 3/02/2013.**
6. “Geomorphology-Evolution of Lake forms Through, Time” sponsored by UGC National level, on 9/03 2013.

Dr. P. K. Patel

Publications:

1. J. Inst. Chemists, 2-Hydroxy-4-n-butoxy-5-nitroacetophenone Oxime (HBPO) as an Extraction Photometric and Gravimetric Reagent for Copper (II) Vol.73, Issue No.J-5 2001
2. J.of Ultra Scientist of Physical Sciences, Corrosion study of Tin-Lead Alloy and brass by Souring substances. Vol.14 (2) 280-283, 2002
3. J.of Ultra Scientist of Physical Sciences, Simultaneous Spectrophotometric Determination of Nickel and Copper form their Alloy using 2- Hydroxy -4-n-butoxypropiofenone Oxime as an Analytical reagent. Vol. 14(3) 459-466, 2002.
4. E-Journal of chemistry, Metal Complexation Studies of 1-(4-carboxy-3-hydroxy-N-methyl phenyl Amino methyl) benzotriazole. Vol.6(2), pp475-480(2009)
5. E-Journal of chemistry, RP-HPLC Method for the Estimation of Donepezil Hydrochloride in Tablet Dosage Form. Vol.6(2), pp594-600(2009)
6. E-Journal of chemistry, Synthesis, Antibacterial and Antifungal activities of s-triazine derivatives. Vol.6(3), pp673-680,(2009)
7. International Journal of Pharm Tech Research, A Validated RP-HPLC Method for Simultaneous Estimation of Indapamide Impurity (Methyl Nitrosoindoline) API forms. Vol.1,(4),pp1287-1296(2009)
8. International Journal of Chem Tech Research, A Method Development and Validation of Rabeprazole Sodium (API) by High-performance Liquid Chromatography. Vol.1,(4), pp1345-1353(2009)
9. Asian Journal of Chemistry, Synthesis and Characterization of Metal complexes of 1-(4-Carboxy-3-hydroxy-N-methyl phenyl aminomethyl)benzotriazole. Vol.22(2), pp1091-1096(2010)

10. International Journal of Chem Tech Research, Synthesis, Characterization, Metal complexation Studies and Biological Screening of some Newly Synthesized Metal Complexes of 1-(4-Carboxy-3-hydroxy-N-isopropyl phenyl amino methyl) benzotriazole with Transition Metals. Vol.2,(2),pp1147-1152(2010)
11. Journal of AOAC International (JAOAC)USA, Estimation of Tadalafil Tablet Dosage Form by High-Performance Liquid Chromatography.Vol.93,(2),pp516-522(2010)
12. International Journal of Pharmaceutical and Chemical Sciences(IJPCS), Synthesis, Characterization, Chelating Properties and Biological Activities of Benzotriazole-Salicylic acid Combined Molecule Vol. 1 (4),pp 1455-1460 (2012)
13. International Journal of Pharmaceutical and Chemical Sciences (IJPCS), Biological Activities of 1,3,4-Thiadiazine Vol. 1 (4) pp 1554-1562 (2012)
14. Journal of Pharmaceutical analysis, Application of UPLC-MS/MS for separation and quantification of 3 α - Hydroxy Tibolone and comparative of bioavailability of two Tibolone formulations in healthy volunteers. Accepted date : 21 February 2013

Presentation and career advancement:

1. Participated U.G.C. Sponsored “Teachers Training Programme in Computer for College Teachers Conducted by Department of Computer Science S. P. University, Vallabh Vidhyanagar From 13th October to 25th October, 1997
2. Participated AICTE-Sponsored one day Workshop on “Environment and Pollution Awareness”
3. With Particular Reference to Pharmaceutical Industries at Institute of Pharmacy, Nirma University of Science and Technology, Ahmedabad, on 11th September 2004.
4. Participated “National Workshop on Spectroscopy and Theoretical Chemistry” Organized by Department of Chemistry, M.S. University, Baroda in Association with Indian Society of Analytical Scientists, Baroda Chapter from 08 to 12, February 2005.
5. Attended the Workshop on “Spectroscopy” Sponsored by U.G.C. And Organized by Department of Chemistry, the Institute of Science, Mumbai, on 23-24 February, 2006.
6. Attended the National Seminar on “Nanotechnology and Its Current Trends” organized by Chemical Engineering Department, Institute of Technology, Nirma University of Science and Technology, Ahmedabad on July 29, 2007.

7. Participated Regional Workshop “An Approach to Analytical Instruments Commonly Used in Chemical Industries” held at Department of Chemistry, Bhavnagar University, Bhavnagar From 17th to 18th September 2005.
8. Attended Symposium on “Prospective roles of Nanoscience and Technology in the Industrial Development of Gujarat” on 9th January 2008 Organized by Department of Chemical Engineering, Faculty of Technology, Dharmsinh Desai University, Nadiad.
9. Attended UGC Sponsored State Level Seminar on “Water Quality and Major Water Problems in Gujarat State at R.R. Mehta College of Science, Palanpur during 26th to 27th August, 2006.
10. Participated “Gujarat Science Congress 2006” Jointly Organized by Gujarat University and Gujarat Science Academy at Gujarat University Ahmedabad on 26th March 2006.
11. Participated in Workshop on “Super Critical Fluid Chromatography” at Nirma University, Ahmedabad.
12. Participated State Level U G C Sponsored Seminar on “Recent Trends and Future Challenges in Chemical Sciences”, Organized by Pramukh Swami Science and H. D. Patel Arts College, Kadi .on February 28,2008.
13. Participated “Awareness Workshop of UGC-DAE Consortium for Scientific Research”, Organized by UGC-DAE Mumbai Centre and Charotar Institute of Applied Sciences (ECC) On January 8-9, 2009.

Prof. C. C. Rathod

Career advancement:

1. International Conference on Environmental issues in emerging and advanced Economies at School of science Ahmedabad stale level on 06/08/2009.
2. Teacher Training Programme at M. G. Science Institute Ahmedabad stale level on 21/11/2009.
3. Data Analysis Using MS-Excel at M. G. Science Institute Ahmedabad stale level on 08/03/2009.
4. Cryptography @ Computer & Safety at C. U. Shah Science College Ahmedabad stale level on 25/01/2011.
5. Rotational Drug Designing at M. G. Science Institute Ahmedabad State level on 11/02/2011.
6. Chemistry contributions to well being of mankind at Science College Kadi National on 28/03/2011

7. Teacher Training Programme by Government of Gujarat State level on 02/07/2011
8. Teacher Training & Capacity Building Programme by ICMR State level on Supramolecules and Nanomaterials – research at Department of Chemistry, Gujarat University on 6-8th February, 2012.
9. Technology Enhanced Learning at M.G. Science Institute State 22/01/2013
10. Physical Education in various Disabilities at M.G. Science Institute National level on 02/02/2013
11. Assessment of health based on body composition at M.G. science Institute State level on 22/02/2013
12. “Climate Change Scenario” at M.G. Science Institute State level on 10/08/2013
13. Orientation Programme for Academic Counselors at Regional Centre of IGNOU Ahmedabad on 21 - 02-2014

Prof. S. H. Patel :

Career advancement:

1. Guj. Science Congress 2006
2. Lab waste management 5 Oct. 2006
3. Nanoscience & Technology 9 Jan. 2008
4. Recent trends in chemical science 26 Feb 2008
5. Frontier advances in Chemical sciences 25,26 March, 2008
6. Emerging trends in chemical sciences 27 Sept 2008
7. Emerging trends in forensic science 27-28 March, 2008
8. Intellectual property right 13th Dec, 2008
9. Alternative Synthetic Strategies for drugs and drug intermediates 2009
10. Industry academia congregate, 22 Jan, 2011
11. XXV Gujarat Science Congress, 26 - 27 Feb 2011
12. Technology enhanced learning, 2011
13. Recent trends and challenges in dye industry, 2012
14. Supra molecules and neon materials research and application, 2012
15. Immerging frontiers genesis drugs and its journey to patients, 2013
16. Health yogic and physical education in various disabilities, 2013
17. Recent advances in industry and chemical education, 2013
18. Assessment of health status on body composition, 2013

Prof. R. K. Patel :

Participation and career advancement:

1. International Conference on Environmental issues in Emerging and advanced

Economies Gujarat University International 06/08/2009

2. Applications of spectroscopic Techniques in Chemistry, Science college, Pilwai, State level seminar 23/02/2010
3. Challenges to Chemical Sciences in Twenty First Century, North Gujarat university, National level seminar 02/02/2011
4. Nanosys, Kachchh University, National level seminar 26/02/2011
5. Teachers' Training & Capacity Building Programme, K.C.G., State level 02/07/2011
6. Technology Enhanced Learning M. G. Science Institute, State level seminar 22/01/2012
7. Recent Advances in Industries & Chemical Education, Science College, Palnpur, State level seminar 03/02/2013
8. Assessment of Health status Based on body composition, M. G. Science Institute, State level seminar 22/02/2013
9. Climate Change Scenario : Past, Present and Future, M. G. Science Institute, State level seminar 10/08/2013

Prof. P. J. Patel :

Participation and career advancement:

1. Participated in U.G.C sponsored state level seminar on “ Environment education and Disaster risk management” organised by Botany Department, M.G. Science Institute, Ahmedabad on 28-29th January 2009.
2. Panel Judge for the Poster competition held at Physical Research Laboratory (P.R.L), Ahmedabad on 28th February 2009 as a part of the national science day celebration.
3. Judge for the competition of Maths Science Exhibition of Secondary and Higher secondary schools held at Navyug Vidhyalaya, Naroda, Ahmedabad by District Education and Training centre, Ahmedabad city on 9th October 2009.
4. Participated in National Seminar on alternative synthetic strategies for drugs and drug intermediates held at Nirma University, Ahmedabad on 13th November 2009.
5. Participated in International Conference on Environmental Issues in Emerging and advanced Economies : Canada, India organised jointly by Department of chemistry and James Reaney Canadian Centre, Gujarat University, Ahmedabad during 6th to 8th December, 2009.

6. Participated in U.G.C. sponsored National Seminar on “ Impact of Statistics on Science & Society” organised by Department of Statistics, M.G. Science Institute, Ahmedabad on 25th-26th February, 2010.
7. Participated in Seminar on “Industry- Academia Congregate-2011” organised jointly by Department of Chemistry, School of Sciences, Gujarat University and The Association of Chemical Technologists- India on 22nd January, 2011
8. Participated in U.G.C. sponsored State Level Seminar “Cryptography and Computer and safety” organised by Department of Maths, C.U.Shah Science college, Ahmedabad on 25th January, 2011.
9. Participated in U.G.C. sponsored National Seminar on “Climate Change : Issues, Challenges and Mitigation” organised by I. V. Patel Commerce College, Nadiad on 26th February, 2011.
10. Participated in U.G.C. sponsored National level two days workshop on “Chemistry : Contributions to Well-being of Mankind” organised by Pramukh Swami Science & H. D. Patel Arts College, Kadi, Gujarat on 28th Feb -1st March, 2011.
11. Participated in International Conference on “Supramolecules and Nano materials- Research and applications” organized jointly by Department of Chemistry, School of Sciences, Gujarat University and Gujcost- Department of Science & Technology, Government of Gujarat, India during 6th to 8th February, 2012.
12. Participation in knowledge Consortium of Gujarat (KCG) Government of Gujarat in two week training Programme on Research in chemistry at R.G. Shah Science College, Vasna, Ahmedabad during 4th to 16th June, 2012.
13. Participation in one day workshop on Technology Enhanced learning (TEL) organized under DBT star college scheme, Ministry of HRD on 22nd January, 2013 held at M. G. Science Institute, Navrangpura, Ahmedabad.
14. Participation in two days National conference on Recent advances in industries and Chemical Education sponsored by UGC at R. R. Mehta Science College, Palanpur North Gujarat during 2nd and 3rd February 2013.
15. Participation in UGC sponsored two days National Seminar on “Health, Yogic & Adapted physical Education in various Disabilities” during 18th and 19th February at Ahmedabad Management Association Ahmedabad organized by M. G. Science Institute, Navrangpura, Ahmedabad.
16. Participation in Gujcost sponsored one day seminar on “Climate change scenario Past, Present and future” organized by Department of Bio-Chemistry and

Microbiology, M. G. Science Institute, Navrangpura, Ahmedabad on 10th August, 2013.

17. Judge for the competition of Maths Science Exhibition of Secondary and Higher secondary schools held at Diwan Ballubhai Higher Secondary School, Kankaria, Ahmedabad by District Education and Training centre, Ahmedabad city on 19th September, 2013.
18. Participation in international conference on Surface Science and Nano technology in Bio-Medical, Pharmaceutical, Engineering systems held on 10th to 12th December, 2013 at Dharamsinh Desai University, Nadiad-387001, Gujarat, India.
19. Participation in UGC sponsored National Seminar on “A Science Beyond Compartmentalization” at Mahatma Gandhi Labour Institute, Near Helmet Cross road, Gurukul road, Ahmedabad during 20th and 21st December, 2013 organized by Department of Bio-Chemistry, M. G. Science Institute, Navrangpura, Ahmedabad.
20. Participation in international conference RAPCOPINC-2014 held on 27th and 28th February, 2014 at Department of Pharmacy, Ramanbhai Patel college of Pharmacy, CHARUSAT – Changa, Ta- Petlad, Dist. – Kheda, Gujarat.

Department of English

1. **Name of the department:** English

2. **Year of Establishment:** 1950

3. **Names of Programmes / Courses offered**

a. Compulsory subject in B.Sc. degree program for all three years.

4. **Names of Interdisciplinary courses and the departments/units involved:**

The English department, apart from UG English course by Gujarat. Uni. is also involved in teaching UG course of IGNOU

5. **Annual/ semester/choice based credit system (programme wise):**

The department has been following the University pattern from the year of establishment. Currently all students are following the semester system as the University introduced the CBCS structure from 2011 onwards.

6. **Participation of the department in the courses offered by other departments:**

The department takes care of compulsory English and Foundation Courses in English for all Science students.

7. **Courses in collaboration with other universities, industries, foreign institutions, etc.**

BULATS under SCOPE, Govt. of Gujarat, Cambridge University.

8. **Details of courses/programmes discontinued (if any) with reasons:** Nil

9. **Number of Teaching posts:**

	Sanctioned	Filled
Professors	0	0
Associate Professors	1	1
Asst. Professors	1	1
Adhyapak Sahayaks	0	0

10. **Faculty profile with name, qualification, designation, specialization,**

(D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Designation	Qualification	Yrs of experience
Dr. R. K. Pujara	HOD	M. Phil. Ph.D.	21
Prof. Shivram Bhataiya	Asst. Prof.	M.A. Ph.D.(continued)	17

11. **List of senior visiting faculty:** Nil

12. **Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:** No temporary faculty

13. **Student -Teacher Ratio (programme wise):** English Compulsory: 250:1.

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Currently we do not have administrative staff. The department depends on the common staff allotted for the institute.

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil/PG.:

Currently one faculty is with doctorate, one is pursuing doctorate.

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

One faculty member Prof. Shivram Bhataiya - has received UGC minor research project.

17. Departmental projects funded by DST, DST-FIST; UGC, DBT, ICSSR, etc. and total grants received:

One faculty member Prof. Shivram Bhataiya - has received UGC minor research project. The total grant received is Rs. 45,000/-.

18. Research Centre /facility recognized by the University:

The faculty makes use of the INFLIBNET facilities of the College for research.

19. Publication:

1. Dr. R. K. Pujara edited First year Workbook of Gujarat University.
2. Co-authored an ELT book 'English In Ninety Days, a complete course in spoken & written English'
3. Writing about Alternative Sexuality: Mahesh Dattai's Seven Steps around the Fire' 98-108 in Girish Karnard and Mahesh Dattani; Methods & Motives published by Yking Books, 2012

Paper Presentation & Participation:

- Dr. R. k. Pujara attended a UGC sponsored national seminar organized by Dept. of English, Gujarat University and presented a paper on contemporary world drama.
- Dr. R.K. Pujara attended an International Seminar at Vallbh Vidyanagar organized by Waymade College and presented a paper on 21st Century Skills.
- Dr. R.K. Pujara attended a NAAC National Seminar at Gandhinagar organized by Uma Arts College and presented a paper on quality improvement in higher education.
- Dr. R.K. Pujara participated in one day state level Seminar at organized at Kheralu, North Gujarat University and presented a paper on 'Classes, Attitudes and Resistance in Bhabhani Bhattacharya's Goddess Named Gold'.

- Dr. R.K. Pujara attended an International Conference at Vallbh Vidyanagar organized by H.M. Patel Institute of English Training and Research and presented a paper on ‘A Comparative study of face to face & Computer based Assessment of Foreign language Speaking Skills’. Waymade College and presented a paper on 21st Century Skills.
- Dr. R.K. Pujara attended a UGC sponsored National Seminar at M.G. Science Institute, Ahmedabad ‘on Impact of Statistics on Science & Society’ and presented a paper on ‘Misuse of Statistics by Media in February, 2010.
- Dr. R.K. Pujara attended Gujcost Sponsored Seminar on Environment at M.G. Science Institute, Ahmedabad and presented a paper on CLIMATE CHANGE THROUGH THE EYES OF LITERATURE in August, 2013.
- Prof. Shivram Bhataiya attended and presented research paper on ICT in English language teaching today at UGC sponsored national seminar at Kadi.

20. Areas of consultancy and income generated:

- Dr R.k Pujara has been appointed as an examiner for Business English Preliminary English Test of Cambridge University.
- Dr R.k Pujara has been appointed as an examiner for IELTS of Cambridge University.

21. Faculty as members in

a) National committees b) International Committees c) Editorial Boards

Currently none of the faculties are engaged in any such committees.

22. Student projects

a) Percentage of students who have done in-house projects including inter-departmental/programme: Nil

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/other agencies:

No students are involved in the project, but the department helps the students in the preparation of college magazine and also prepare the students for co-curricular activities.

23. Awards/ Recognitions received by faculty and students;

Dr. R.K. Pujara been appointed as an examiner for Business English Preliminary English Test of Cambridge University. He also works an IELTS examiner for IDP IELTS, Australia.

24. List of eminent academicians and scientists/ visitors to the department : None

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National : None

b) International: None

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			M	F	
The English Dept. caters to all the students starting from the first year to final.					

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
B. Sc Sem I	The department caters to all the students of the College		
B. Sc. Sem IV			
B. Sc. Sem VI			
M Sc Sem II			
M Sc Sem IV			

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

No data available

29. Student progression : -

30. Details of Infrastructural facilities

a) Library:

The total number of English Language and Literature books in the College library has 800 books.

b) Internet facilities for Staff & Students:

Faculty uses internet facility available in department. The students can avail internet facility for referencing in the College library.

c) Class rooms with ICT facility:

As and when required, the department uses the common hall for the presentation on projector

d) Laboratories:

The Department has Digital English Language Learning lab (DELL) that houses 24 students with a specially assigned server.

31. Number of students receiving financial assistance from college, university, government or other agencies: None

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts:

Students are encouraged to take BULATS –Business Language Testing Service of Cambridge University for the proficiency in English. The Department arranges special lectures to guide the students for this international English test.

33. Teaching methods adopted to improve student learning:

- Use of audio-visual materials, internet
- Dramatization, quizzes, games and role-play
- Student presentations, panel discussions and research papers by students

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Prof. Shivram Bhataiya is actively involved in NSS activities of the institute and encourages students to participate various extension activities.

35. SWOC analysis of the department and Future

Strength:

- Very committed faculty
- Mentoring and follow up of weaker students
- Over 98% of passing rate
- Involvement in extracurricular activities

Weakness:

- Only 2 faculty for the entire college
- Lack of interest among students for the English subject
- We do not have a large enough departmental room

Opportunities:

- The increasing demand for English in the market.
- To encourage to do work in the areas of communication.

Challenges

- To generate interest for language is a real challenge as their major subject is science. The level of incoming students is so far poor so that it is an uphill task to lift them up to a really good critical level as most of the students come from Gujarati medium schools, so teaching becomes a real challenge.

Department of Geology

1. **Name of the Department:** Geology
2. **Year of Establishment:** 1948
3. **Names of Programmes / Courses offered**
 - a. B. Sc. Geology (since 1948),
 - b. M. Sc. (Geology) (since 1952)
 - c. COP (Geoinformatics) (since 2009)
 - d. Ph. D. (since 2003)

4. Names of Interdisciplinary courses and the departments/units involved:

At present there is no provision of interdisciplinary courses as per Gujarat University set up. But we are planning to start B.Sc. Geology course with IGNOU.

5. Annual/ semester/choice based credit system (programme wise):

The department had been following the University pattern which was annual system since the year of establishment. But now the first year to the third year students are following semester system, as the Gujarat University has introduced the CBCS structure from 2011 onwards. CBCS has also been introduced at Post-Graduate level since 2009.

6. Participation of the department in the courses offered by other departments:

The faculty members have worked as visiting faculty to teach various branches of Geology in Civil Engineering departments at CEPT University, GTU University, Nirma University and in Geophysics department at Ganpat University.

7. Courses in collaboration with other universities, industries, foreign institutions, etc.

Ph. D. programme at KSKV Kachchh University and North Gujarat University.

8. Details of courses/programmes discontinued (if any) with reasons:

So far no programme has been discontinued but new courses like COP and Ph. D. have been introduced.

9. Number of Teaching posts:

	Sanctioned	Filled
Professors	0	0
Associate Professors	3	3
Asst. Professors	1	0
Adhyapak Sahayaks	0	0

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.):

Name	Qualification	Designation	Specialization	Exp/ Years	No. of Ph.D. Students guided for the last 4 years
Dr. Rajesh D. Shah	M. Sc., Ph. D. Post Doc	Associate Professor & Head	Environmental Geology, Hydrogeology, Engg. Geology.	35	Ph. D. guide and PG teacher
Dr. Nishith Y. Bhatt	M. Sc., Ph. D. Post Doc	Associate Professor	Ichnology, Sedimentology, Stratigraphy, Hydrogeology.	27	Ph. D. guide and PG teacher
Dr. Paras M. Solanki	M. Sc., Ph. D. Post Doc	Associate Professor	Ichnology, Sedimentology, Stratigraphy.	15	Ph. D. guide and PG teacher

11. List of senior visiting faculty:

Eminent scientists and experienced experts are invited as visiting faculties in Post Graduate courses. The list is given in the following table:

Sr. No.	Name of Faculty	Institute/Organization
1	Shri A. C. Banerjee	Retd. Geologist, GSI, Gandhinagar.
2	Shri S. P. Vyas	Retd. Hydrogeologist, Public Health, Gandhinagar.
3	Dr. Nilesh Bhatt	Associate Professor, Geology Department, M.S. University of Baroda, Vadodara.
4	Shri D. U. Vyas	General Manager (Geology), GMDC, Ahmedabad
5	Dr. J. M. Patel	Head & Assistant Professor, Geology Department, Shri R.R. Lalan college, Bhuj.
6	Dr. M. G. Thakkar	Head & Reader, Geology Department, Kachchh University, Bhuj.
7	Dr. H.V. Majethiya	Assistant Professor, Geology Department, Shri R.R. Lalan college, Bhuj.
8	Dr. Niral Patel	Geologist, GSPC, Gandhinagar.
9	Ms. Rupal Brahmhatt	Research Associate, SAC, ISRO, Ahmedabad.

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

There is no temporary faculty but as and when required help of M. Sc. final year students is taken who conduct the practicals of B. Sc. Sem-I & II.

13. Student -Teacher Ratio (programme wise):

The current teacher student ratio is shown in the following table:

Class	Ratio
B. Sc. Sem – I and II	1:12
B. Sc. Sem III and IV	1:18
M. Sc. Sem I and II	1:5
M. Sc. Sem III and IV	1:5
Ph. D.	1:4 to 1:7

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

	Sanctioned	Filled
Laboratory Assistant	1	1
Laboratory Peons	2	0
Adhoc – Temporary (Management appointed) Peons	-	2

15. Qualifications of teaching faculty with D. Sc./ D. Litt/ Ph. D./ M. Phil./P. G.:

Currently all the three faculties are Ph. D. degree holders and are engaged in Post Doctorate research. All are recognized Ph. D. guides.

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

Name of the Faculty	Project Duration	Title of the Project	Funding Agency	Amount
Dr. R. D. Shah	2011-14	Monitoring of Himalayan Snow and Glaciers- MoEF Phase -II	SAC – ISRO, Ahmedabad	Rs. 21,35,000/-

17. Departmental projects funded by DST, DST-FIST; UGC, DBT, ICSSR, etc. and total grants received:

Sr. No.	Title of Project	Funded by	Completed / in progress	Date of Starting
1	Wetland Mapping of India.	SAC, ISRO, Government of India. Fund: Rs. 60,90,000/-	Completed	October, 2008 to March, 2011.
2	Mineralogical Investigation using Chandrayan Data	SAC, ISRO, Government of India. Fund: Rs.7,00,000/-	Completed	2009 – 2011
3	Snow and Glaciers MoEF	SAC, ISRO, Government of India. Fund: Rs.10,50,000/-	Completed	2008 - 2010
4	Programme on Climate Change Research in Terrestrial Environment (PRACTRITI)	SAC, ISRO, Government of India. Fund: Rs.18,10,000/-	Completed	2008- 2010
5	Subsurface Bioturbation Patterns In A Modern Tidal Flat Environment Along The Navinal Coast, Kachchh Window, Gujarat.	Department of Science and Technology, Government of India. Fund: Rs.13,96,800/-	Completed	11-02-2006 to 31-03-2012.
6	Sequence Stratigraphy of the Middle Jurassic sediments of Patcham Islands, Kachchh, Western India: An Ichnological Approach.	Department of Science and Technology, Government of India. Fund: Rs.12,82,200/-	Completed	1 st July, 2009 to 31 st March, 2013.
6	Prospects of Lignite in Kachchh, Gujarat	Gujcost, Gandhinagar. Fund requested: Rs.18400/-	Completed	2010-11
7	Fluvial Geomorphology of Sabarmati River Basin from Mahudi to Gandhinagar.	Gujcost, Gandhinagar. Fund requested: Rs. 25000/-	Proposal is under process.	One year.

8	Bauxite Deposits of Jamnagar District.	Gujarat Mineral Development Corporation Ltd. Fund: Rs.1,40,000,00/-	Completed	2013.
9	Hydrogeological studies of the extension of Vastan mine lease area.	Gujarat Industrial Power Company Ltd. Works. Fund: Rs. 3,40,000/-	Completed	November, 2008 to June, 2009.
10	Coastal Management Criteria Using Remote Sensing Techniques of Alang Ship Breaking Yard.	Gujcost, Gandhinagar. Fund requested: Rs. 29000/-	Proposal is under process	One year.
11	Occurrences and future prospects of Dinosaur fossils from Eastern Gujarat.	Gujarat Council on Science and Technology (GUJCOST), Department of Science and Technology, Gujarat.	Proposal is under process	One year.

18. Research Centre /facility recognized by the University:

Geology department is recognized research centre for Ph. D. degree in various branches of geology subject by Gujarat University. An MoU for technological and equipment sharing has also been signed between Institute of Seismological Research, Government of Gujarat and Geology Department of the M.G. Science Institute. Under this MoU, scientists of ISR can do their research at Geology Department, and students of Geology Department can carry out their dissertation and research at ISR.

19. Publication:

List is given at the end of the document

20. Areas of consultancy and income generated:

Consultancy projects have been undertaken by the department on the economic mineral deposits – Bauxite of Jamnagar as well as on the “Hydrogeological studies of Lignite Mines of GMDC and GIPCL”. The projects were worth Rs.1.5 crores.

21. Faculty as members in:

National committees b) International Committees c) Editorial Boards

Dr. Rajesh D. Shah and Dr. Nishith Y. Bhatt are members of the Board of Studies (Geology). All the three faculties of Geology department - Dr. Rajesh D. Shah, Dr. Nishith Y. Bhatt and Dr. Paras M. Solanki have contributed in syllabus preparation/modifications of B. Sc Sem I to Sem VI and M. Sc. Sem I to Sem IV for Gujarat University.

Dr. Rajesh D. Shah is attached with following committees:

Sr. No.	Organization	Type of membership	Position
1	Mining Engineers' Association of India (MEAI-Ahmedabad Chapter).	Life-Member	Chairman
2	Geology Students' Association (GSA), Ahmedabad.	Life-Member	Chairman
3	Indian Society of Earthquake Sciences (ISES), Gandhinagar.	Life-Member	Council Member
4	M.G. Science Alumni Association (MAA), Ahmedabad.	Life-Member	Secretary
5	Indian Society of Remote Sensing (ISRS), Ahmedabad Chapter, Dehradun.	Life Member	Vice President 2012 - 2014
6	Indian Geological Congress (IGC), Roorkee.	Life Member	Member
7	Indian Society of Geomatics (ISG), Ahmedabad Chapter.	Life Member	Member
8	Indian Geologist's Association (IGA), Chandigarh.	Life Member	Member
9	Indian Society of Hydrologists, Roorkee.	Life Member	Member

Dr. Nishith Y. Bhatt is attached with following committees:

Sr. No.	Organization	Type of membership	Position
1	Fellow of Geological Society of India (GSI), Bangalore.	Life-Member	Member
2	Mining Engineers' Association of India (MEAI-Ahmedabad Chapter);	Life-Member	Member
3	Geology Students' Association (GSA), Ahmedabad	Life-Member	Secretary
4	Indian Society of Earthquake Sciences (ISES), Gandhinagar;	Life-Member	Member
5	M.G. Science Alumni Association (MAA), Ahmedabad	Life-Member	Member
6	Indian Society of Remote Sensing (ISRS), Ahmedabad Chapter, Dehradun.	Life Member	Member
7	Indian Geological Congress (IGC), Roorkee;	Life Member	Member
8	Indian Society of Geomatics (ISG), Ahmedabad Chapter	Life Member	Member
9	Indian Geologist's Association (IGA), Chandigarh	Life Member	Member
10	Indian Society of Hydrologists, Roorkee.	Life Member	Member
11	Gondwana Geological Society (GGS), Nagpur.	Life Member	Member
12	Indian Association of Sedimentologist (IAS), Aligarh.	Life Member	Member
13	Palaeontological Society of India (PSI), Lucknow.	Life Member	Member

Dr. Paras M. Solanki is attached with following committees:

Sr. No.	Organization	Type of membership	Position
1	Mining Engineers' Association of India (MEAI-Ahmedabad Chapter).	Life-Member	Member
2	Geology Students' Association (GSA), Ahmedabad.	Life-Member	Treasurer
3	Indian Society of Earthquake Sciences (ISES), Gandhinagar.	Life-Member	Member
4	M.G. Science Alumni Association (MAA), Ahmedabad.	Life-Member	Member
5	Indian Society of Remote Sensing (ISRS), Ahmedabad Chapter, Dehradun.	Life Member	Member
6	Indian Society of Geomatics (ISG), Ahmedabad Chapter.	Life Member	Member
7	Indian Association of Sedimentologist (IAS), Aligarh.	Life Member	Member
8	Palaeontological Society of India (PSI), Lucknow.	Life Member	Member

22. Student projects:

a) Percentage of students who have done in-house projects including inter-departmental/programme:

M.Sc. Sem – II students have proposed 3 Student Sci-Tech projects to Gujarat Council on Science and Technology (GUJCOST), which are under consideration. Three students of M. Sc. Sem II and IV were involved in the project on Jamnagar Bauxite Deposits.

M.Sc. Sem IV (2012-13 and 2013-14) students have completed their dissertation and industrial training as a part of their Gujarat University syllabus requirements.

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/other agencies:

M.Sc. Sem III-IV (from 2008-09 to 2011-12) students have completed their training in various government, semi-government and private departments and industries such as PRL, SAC, BISAC, CGM, GMDC, ISR etc.

23. Awards/ Recognitions received by faculty and students:

Darji Simone of M.Sc Sem IV has been awarded Geo-youth 2013-14 by M.L. Sukhadia University Rajasthan. Also awarded as best paper presentation in student category in second International Symposium in 2012 held at Institute of Seismology Gandhinagar.

Panchal Krishna, and Kankad Hasmukh of M.Sc Sem- II and Darji Simone and Tariq Shaikh of M.Sc Sem IV have received Rajiv Gandhi Meritorious Award for securing highest number of marks.

24. List of eminent academicians and scientists/ visitors to the department:

Sr. No.	Visitor's Name	Institute/Organization
1.	Dr. L.S. Chamyal	Head & Prof., Department of Geology, M.S. University, Vadodara.
2.	Dr. Nilesh Bhatt	Professor, Department of Geology, M.S. University, Vadodara.
3.	Dr. D.M. Maurya	Assoc. Prof., Department of Geology, M.S. University, Vadodara.
4.	Dr. Navin Juyal	Scientist, Physical Research Laboratory (PRL), Ahmedabad.
5.	Dr. B.K. Rastogi	Director General & Scientist, Institute of Seismological Research (ISR), Gandhinagar.
6.	Dr. A.S. Rajawat	Scientist, Space Application Centre (SAC), ISRO, Ahmedabad.
7.	Dr. I. Bahuguna	Scientist, Space Application Centre (SAC), ISRO, Ahmedabad.
8.	Dr. R.D. Deshpande	Scientist, Physical Research Laboratory (PRL), Ahmedabad.
9.	Dr. A.K. Singh	Head & Professor, Department of Civil Engineering, Pandit Dindayal Petroleum University (PDPU), Gandhinagar.
10.	Dr. Sandip Trivedi	Head & Professor, Department of Civil Engineering, Indus University (IU), Ahmedabad.
11.	Dr. A.V. Kulkarni	Eminent Visiting Scientist, Indian Institute of Science (IISc), Banglore.
12.	Dr. Niral Patel	Scientist, Gujarat State Petroleum Corporation Ltd., Gandhinagar.

25. Seminars/ Conferences/Workshops organized & the source of funding:

a) National:

Sr. No	Title	Sponsoring Agency	Level	Date	Amount
1	Recent Developments in Mineral Exploration Technology.	UGC	State	29-30 August, 2008.	Rs. 69,000/-
2	Geomorphology – Evolution of Landforms through Time.	UGC	National	8-9 March, 2013.	Rs. 83,000/-

b) International: So far International seminars or symposia have not been organized by the department but the faculties have participated and presented papers in such seminars.

26. Student profile programme/course wise:

Name of the Course/programme	Applications received (2013 – 2014)	Selected	Enrolled		Pass percentage
			M	F	
B. Sc. Sem - I	Approx 45	35			
B. Sc. Sem - III	55	55			
B. Sc. Sem - VI	18	18			
M. Sc. Sem - I	23	15	12	02	
M. Sc. Sem - III	15	15	08	07	
Ph. D.	13	05	02	03	

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
B. Sc. Sem II	100 %		

B. Sc. Sem IV	99 %		1 %
B. Sc. Sem VI	100 %		
M. Sc. Sem II	100 %		
M. Sc. Sem IV	100 %		
Ph. D.	75 %	20 %	5 %

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

- One student, Ms. Divya Varma has cleared NET in 2012
- Two students namely Mr. Snajiv Bhatt, Mr. Gautam Parmar have cleared IPS – Civil Services Exam.

29. Student progression

Student progression	Against % enrolled
UG to PG	Out of 20 to 30 students, 15 students are admitted to PG Programme in Geology
PG to M. Phil.	There is no M. Phil program in Gujarat University in Geology
PG to Ph. D.	Out of 15 students 5 students have been registered for Ph. D. as per seats availability
Ph. D. to Post-Doctoral	1 student is doing PDF
Employed Campus selection Other than campus recruitment	All the students with M Sc degree have been employed in last 5 years
Entrepreneurship/Self-employment	More than 5 students have started their own business related to the subject in last 5 years

30. Details of Infrastructural facilities

a) **Library:**

The departmental library has 200 books. The rest in central library has **550** books. There are 6 journals as well.

b) **Internet facilities for Staff & Students:**

The department has an internet portal for faculty accessibility. The students can avail internet facility for referencing in the department computers.

c) **Class rooms with ICT facility:**

The department owns a portable LCD projector, which enables the faculty and students to give power point presentations for teaching and seminars respectively. Department also has an OHP.

d) **Laboratories:**

Three labs: Total intake capacity is 150.

31. Number of students receiving financial assistance from college, university, government or other agencies: -

32. Details on student enrichment programmes (special lectures / workshops / seminar)

with external experts:

- Students have participated in departmentally organized state and national level seminars by oral – poster presentations.
- Five popular lectures were arranged.
- Every year geological field study tour and industrial visit for S.Y. to M.Sc. students are organized.
- FY to TY has given assignments; while M.Sc. students have given seminars and assignments.

33. Teaching methods adopted to improve student learning:

In addition to regular classroom blackboard teaching method, the use of LCD/OHP/seminars/study tours/industrial trainings/ competitions/popular lectures/ assignments /question paper solving etc. are used to improve student learning.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Geology faculty are involved in Admission process/youth festival/ or any unassigned work for the good of students and society.

35. SWOC analysis of the department and Future

Strength:

Geology department is the oldest department in the state of Gujarat. It was started in 1948 by Prof S. Mukherjee, an alumnus of Presidency College, Kolkatta. Over the period of time, the department has grown from UG to Ph D level and from 10 students to about 150 students in last year. Faculty of the department was pioneer in bringing research project of Rs. 5000/- in 1994 and now the department has completed research as well as consultancy more than Rs. 2 crores.

Faculties are all doctorate with more than 10 students working for their doctorate degree. U G and P G students are involved in the industrial training as well as project work. The department has very good interaction and collaboration with the institutes of national repute like ISRO, ISR, IISc, MoEF, GMDC, CGM, PRL, GSPC etc. The department has organized three state level and national level workshops and seminars. The department has a strong alumni association which has members ranging from 1955 to 2013 pass out. The department has one of the best collections of rocks, minerals and fossils and houses a one of its only kind of museum in Ahmedabad. The department provides diverse use of technology which includes computers, internet, e-books. The

department has held campus interview and presently no student is jobless.

Students are encouraged to become members of the professional bodies and attend the seminars /workshops organized by such associations.

Special Achievement:

For International Earth Science Olympiad, 2009 (IESO-2009), Dr. Paras M. Solanki had guided Mr. Sharad C. Mirani, who was a student of 10th class. During the month of August, 2009 there was a National level Olympiad held at Bangalore and he was selected in the Indian team constituting of 4 students. Then all 4 students appeared at the Taipei, Taiwan at the international level in September, 2009 in the Earth Science Olympiad and he won the Bronze medal as well as achieved the award of “Best Presentation” at World level. Dr. Paras M. Solanki has guided him for the subject of Earth Science for 2 months continuously at the Geology Department of M. G. Science Institute.

Weakness:

The department has started its journey long back, so now it has reached from developing stage to fully developed stage. Though development has no limit we envisage few improvements in terms of specimen collection and human resource. Teaching work load of post graduate classes are not counted in the total work load and therefore we have been deprived of grants under FIST scheme. As well the students also suffer and this shortfall is overcome by inviting visiting experts for lectures.

Opportunities:

The department poses lots of opportunities to the students and faculties by organizing seminars, workshops and conferences. There is continuous interaction between various research and industrial organizations which exposes the students to interact with the eminent scientists as well as entrepreneurs. Interaction with various universities also helps to develop the syllabi and teaching methodology. With number of projects successfully completed by the department, there is enough scope now to explore more and more fields in which further collaboration may be sought. This will not only help the students to secure good placement but also the faculties will get wider exposure. Students have freedom to prospect new avenues in terms of higher studies and placement and regular meeting with the alumni and self employers provide enough opportunities.

Challenges

Since the department has acquired reputation in good fundamental and advance teaching,

outstanding collection of field and museum specimens, adequate infrastructural facilities etc, has posed a biggest challenge not only to main the high standards but also raise the bar and perform continuously extraordinarily.

19. Publications: Books

Sr.No.	Title	Publisher	Edition	Date
1	UGC sponsored National Seminar Volume on 'Geomorphology – Evolution of Landforms through Time'	Geology Department, M.G. Science Institute, Ahmedabad - 380009.	First	8-9 March, 2013
2	Co-Principal Investigator and author in Project Completion Report of DST research project (DST no. SR/S4/ES-350/2008) on 'Sequence Stratigraphy of the Middle Jurassic Sediments of Patcham Islands, Kachchh, Western India: An Ichnological Approach'.	Dr. Nishith Y. Bhatt, Geology Department, M.G. Science Institute, Ahmedabad - 380009. Submitted to Department of Science and Technology (DST), Government of India, New Delhi.	First	2013, 174 p.
3	Principal Investigator and first author in Project Completion Report of DST research project (DST no. SR/S4/ES-21/Kachchh Window/P5) on 'Subsurface bioturbation patterns in a modern tidal flat environment along the Navinal coast, Kachchh window, Gujarat'.	Dr. Nishith Y. Bhatt, Geology Department, M.G. Science Institute, Ahmedabad - 380009. Submitted to Department of Science and Technology (DST), Government of India, New Delhi.	First	September, 2012, 265 p
4	Co-investigator and author in Project Report on 'Wetland Mapping of India'.	SAC-ISRO, Government of India.	First	March, 2010.
5	UGC sponsored State level Seminar Volume on 'Recent Developments in Mineral Exploration Technology'	Geology Department, M.G. Science Institute, Ahmedabad - 380009.	First	29-30 August, 2008
6	Co-Principal Investigator and author in Project Completion Report of DST research project (DST no. SR/S4/ES-31/2002) on 'Ichnology of the Mesozoic Sediments of Mainland Kachchh, Western India'.	Dr. Nishith Y. Bhatt, Geology Department, M.G. Science Institute, Ahmedabad - 380009. Submitted to Department of Science and Technology (DST), Government of India, New Delhi.	First	2007, 164 p.
7	Wet Land Mapping of India - Atlas	Dr. R. D. Shah	First	2010
8	Report on Snow and Glaciers	Dr. R. D. Shah	First	2008 and 2011

Publications: Journals:

1. Brahmhatt, Rupal, M, Bahuguna, I.M., Rathore, B.P., Kulkarni, A.V., Nainwal, H. C., Shah, R.D. and Ajai. 2012, A comparative study of deglaciation in two neighboring basins (Warwan and Bhut) of Western Himalaya. *Current Science*. Publishing date: 10 August, 2012
2. Brahmhatt, Rupal, M, Bahuguna, I.M., Rathore, B.P., Kulkarni, A.V., Nainwal, H. C., Shah, R.D. and Ajai. 2011, Variation of Snow line and Mass Balance of Glaciers of

- Warwan and Bhut Basins of Western Himalaya Using Remote Sensing Technique. *Journal of Indian Society of Remote Sensing*. DOI 10.1007/s12524-011-0186-z.
3. Brahmhatt, Rupal, M, Bahuguna, I.M., Rathore, B.P., Kulkarni, A.V., Nainwal, H. C., SHAH, R.D. and Ajai. Significance of glacio-morphological factors in the retreat of Himalayan glaciers: A study using Remote Sensing and Geographic Information System. *Remote Sensing of Environment*. Submitted revised manuscript.
 4. Lal, D., Chauhan, P., SHAH, R. D. and Ajai. 2012. Feo and Tio₂ abundance analysis around Apollo 17 landing site using reflectance spectra from the hysi sensor on-board Chandrayan 1. *Current Science* 102(7) pp 1041-1046.
 5. Lal, D., Chauhan, P., Shah, R. D., Bhattacharya, S., Ajai and Kiran Kumar, A. S. 2012. Detection of Mg spinel lithologies of central peak of crater Theophilus using Moon Mineralogy Mapper (M3) data from Chandrayan 1.
 6. Satish J. Patel, Jaquilin K. Joseph and Nishith Y. Bhatt (2013) Sequence Stratigraphic Analysis of the Mixed Siliciclastic-Carbonate Sediments (Middle Jurassic) of the Patcham Island, Kachchh, Western India: An Ichnological Approach. Special Publication No. 1 - Geological Society of India, pp. 1-15, 2013.
 7. Satish J. Patel, Jaquilin K. Joseph and Nishith Y. Bhatt (2013) Facies Controlled Synaeresis Cracks in Mixed Siliciclastic-Carbonate Sediments of Middle Jurassic of Patcham Island, Kachchh, Western India. *Journal of the Geological Society of India*. v. 82, no. 1, pp. 9-14, July, 2013.
 8. Nishith Y. Bhatt, Satish J. Patel and Jaquilin K. Joseph (2012) "Significance of trace fossils in Transgressive-Regressive Cycles: an example from the Callovian-Oxfordian sediments of the Gangeshwar Dome, SE of Bhuj, Mainland Kachchh, India". Paper presented at Annual International Conference on Geological and Earth Sciences (GEOS 2012), Singapore, 3 to 6 December, 2012. Copyright c GSTF 2012; ISSN: 2251-3361; doi: 10.5176/2251-3361_GEOS12.31; pp. 42-47.
 9. Jagdish M. Patel, Nishith Y. Bhatt and Satish J. Patel (2012) Environmental Significance of Trace Fossils of the Mesozoic rocks of Kas Hills, North-East Mainland Kachchh, Western India. *Gondwana Geological Magazine*, Special volume no. 13, December, 2012, pp. 163-188.
 10. Satish J. Patel, Jaquilin K. Joseph and Nishith Y. Bhatt (2012) Sedimentology and depositional environment of the rocks of Kaladongar Formation (Middle Jurassic), Patcham Island, Kachchh, Western India. *Gondwana Geological Magazine*, Special volume no. 13, December, 2012, pp. 75-86.
 11. Jaquilin K. Joseph, Satish J. Patel and Nishith Y. Bhatt (2012) Trace fossil assemblages in mixed siliciclastic-carbonate sediments of the Kaladongar Formation (Middle Jurassic), Patcham Island, Kachchh, Western India. *Journal of the Geological Society of India*. v. 80, no. 2, pp. 189-214, August, 2012.
 12. Nishith Y. Bhatt and Satish J. Patel (2012) Ichnology of the Jurassic sediments of Gangeshwar Dome, Southeast of Bhuj, Mainland Kachchh, India. *Gondwana Geological Magazine*, Nagpur v. 27(1), June, 2012, pp.113-133.
 13. Nishith Y. Bhatt, Satish J. Patel, Dipal A. Patel (2010) Sedimentological Significance of the Subsurface Bioturbation Patterns in Tidal Flat Environment along the Navinal Coast, Kachchh, Western India. *Gondwana Geological Magazine*, Special volume No. 12, 2010, pp.337-346, October, 2010.
 14. Satish J. Patel, Jaquilin K. Joseph and Nishith Y. Bhatt. (2010) Sequence Stratigraphic Significance of Sedimentary Cycles and Trace Fossils in the Middle Jurassic Rocks of Kuar Bet Area, Patcham Island, Kachchh India. *Gondwana Geological Magazine*, Special volume No. 12, 2010, pp.189-197, October, 2010.

15. Bhatt Nishith Y., Satish J. Patel, Dipal A. Patel and Hardik P. Patel, (2009) Burrowing Activities of Goby Fish in the Recent Intertidal Mud Flats along the Navinal Coast, Kachchh, Western India. *J. Geol. Soc. India*, v. 74, no.4, pp. 515-530, Octo. 2009.
16. Patel, S.J., N.Y. Bhatt and B.G. Desai, (2008) *Asteriacites quinquefolius* - Asteroid Trace Maker from the Bhuj Formation (Lower Cretaceous) of the Mainland Kachchh, Western India. *J. Geol. Soc. India*, v. 71, no.1, pp. 129-132, Jan. 2008.

Other Publications:

1. Report on “FluvioGeomorphological Studies of Ganga River Using Remote Sensing and GIS” in collaboration with SAC, Ahmedabad. April, 2009.
2. Atlas on “FluvioGeomorphological Studies of Ganga River of U P state” Using Remote Sensing and GIS” in collaboration with SAC, Ahmedabad. April, 2009.
3. Atlas on “FluvioGeomorphological Studies of Ganga River of Bihar state” Using Remote Sensing and GIS” in collaboration with SAC, Ahmedabad. April, 2009.
4. Desai, A. J., R. D. Shah, M. V. Muley and A. S. Arya; “Fluviogeomorphological Changrs in the Ganga over past 70 years around Begusarai and Bhagalpur in Bihar, India:A Remote Sensing bases Approach., *Joul. Of Geomatics*, Vol.5 No.1 April 2011 pp 31-36.
5. Singh, R. P., Pandya, A and Shah, R. D., 2013. Science plan for thermal infrared spectrometer (TIS) instrument. Workshop on Lunar and Mars Geosciences, Ahmedabad, July 30-31, 2013.
6. Brahmhbhatt, Rupal, M, Bahuguna, I.M., Rathore, B.P., Kulkarni, A.V., Shah, R.D. and Ajai. 2010 A comparison of glacial retreat in two adjacent basins of Western Himalaya, India: Study using Remote Sensing and Geographic Information System. *Presented at International Symposium: Benefiting from Earth Observation – Bridging the data gap for adaptation to climate change in the Hindu Kush – Himalayan Region*, ICIMOD, Kathmandu, Nepal, 4-6 October.
7. Brahmhbhatt, Rupal, M, Kulkarni, A.V., Rathore, B.P., Bahuguna, I.M., Shah, R. D., March, 2010, Application of remote sensing and GIS in glacier retreat: A case study in warwan sub-basin, chenab basin, Presented at National research conference on climate change, Indian Institute of Technology Delhi, March 5 and 6, 2010.
8. Brahmhbhatt, Rupal, M, Rathore, B.P., Bahuguna, I.M., Kulkarni, A.V., Shah, R. D., and Ajai, 2010, AAR based mass balance studies: A case study of warwan basin., presented in National conference on climate change: Coastal Ecosystems with special session on planetary Geomatics and annual convention of Indian society of Geomatics (ISG).
9. Bahuguna, I.M., Brahmhbhatt, Rupal, M., Rathore, B.P., Shah, R. D., Kulkarni, A.V., Ajai, 2008, *Retreat and fragmentation of Himalayan glaciers: A study of Warwan Basin, Lead paper*, Presented in National Symposium on Advances in Remote sensing technology and Applications with Special Emphasis on Microwave Remote Sensing, 18-20 December, 2008, Ahmedabad.
10. Brahmhbhatt, Rupal, M and Shah, R.D., 2008, *Monitoring of a Himalayan glacier using Remote Sensing and GIS*, Presented in National conference on Geomatics for planet earth and annual conventions of Indian Society of Geomatics, 18-20 February, 2008, Bhopal.
11. Brahmhbhatt, Rupal, M, Bahuguna, I.M., Rathore, B.P., Kulkarni, A.V. and Shah, R.D., *Monitoring changes in glacial extent in Bhut sub-basin of Chenab Basin*, Presented in National conference on Geomatics and impact of climate change with specific reference to mountain ecosystem, 4-6 February, 2009, Dehradun.
12. Patel, Satish J. and Nishith Y. Bhatt 2009. Biogenic Sedimentary Structures and their significance in Holocene Coastal Evolution along the Kachchh Coast Line, Western

- India. (Poster) presented at The Second Asia Pacific (International) Conference on 'Luminescence and Electron Spin Resonance Dating' held at the Physical Research Laboratory, Ahmedabad, India during November 12-15, 2009, p. 89.
13. Nishith Y. Bhatt, Paras M. Solanki, Vivek N. Upasani, Dipal A. Patel, Hardik P. Patel and Satish J. Patel, 2010. Geological occurrence of algae in the intertidal environment of Navinal area, Kachchh, Western India. Poster presented at UGC Sponsored National Seminar on "Current Trends in Microbiological Sciences", January 23-24, 2010.
 14. Nishith Y. Bhatt, Paras M. Solanki, Dipal A. Patel, Heman V. Majethiya, Jagdish M. Patel, Hardik P. Patel, 2010. Statistical analysis and environmental interpretation of beach sediments, Kachchh coastline, Western India. Paper presented at the UGC sponsored National Seminar on "Impact of Statistic on Science and Society" held at M.G. Science Institute, Ahmedabad, India, February 25-26, 2010.
 15. Nishith Y. Bhatt, Satish J. Patel, Dipal A. Patel, Hardik P. Patel and Paras M. solanki, 2010. Bioturbation patterns and its environmental significance along the Navinal tidal flats, Kachchh, West India. Paper presented at the Gujarat Science Congress held at Chemistry Department, Gujarat University, Ahmedabad, India, March 21, 2010.
 16. Vivek N. Upasani and Nishith Y. Bhatt 2010. Exploring microbes from saline soils/environments. Paper presented at the National Conference on 'Geomicrobiology and Microbe-Sediment Interaction' sponsored by DST, New Delhi and organized by Department of Microbiology, M.S. University of Baroda, on 19th August, 2010 at Vadodara.
 17. Nishith Y. Bhatt, Satish J. Patel and Dipal A. Patel 2010 Sedimentological Significance of the Subsurface Bioturbation Patterns in Tidal Flat Environment along the Navinal Coast, Kachchh, Western India'. Paper presented at National Seminar on Sedimentary Basins of India Organized by Gondwana Geological Society on 22-23 October, 2010 at Nagpur.
 18. Nishith Y. Bhatt, Satish J. Patel, Dipal A. Patel, Hardik P. Patel, and Paras M. Solanki, 2011. Burrow morphology produced by *Uca*, *Ocypode* and *Scopimera* (sand bubbler) crabs on the Intertidal zone of Navinal Coast, Gulf of Kachchh, Gujarat, Western India. A paper presented at the Paper presentation competition - Science Excellence - held at Gujarat University, under Swarnim Gujarat, Vignan Parishad, Gujarat University, on 8th January, 2011 and won first prize of Rs.400/- in research category.
 19. R.D. Shah, N.Y. Bhatt and P.M. Solanki 2011 'Ground Deformation and Liquefaction Structures formed due to 2001 Kachchh Earthquake on the Sabarmati River bed near village Motiboru, Ta. Dhandhuka, Dist. Ahmedabad, Gujarat, India'. Poster presented in International conference at Institute of Seismological Research (ISR), Raisan, Gandhinagar on 22, 23, 24 January, 2011.
 20. Jaquilin K. Joseph, Satish J. Patel and Nishith Y. Bhatt 2011 "Palaeoecological Significance of Trace Fossils of the Mixed Siliciclastic-Carbonate Sediments of the Kaladongar Formation (Middle Jurassic), Patcham Island, Kachchh, Western India" paper presented in National conference on Stratigraphy, Palaeontology & Palaeoenvironment organized by Department of Geology, University of Rajasthan, Jaipur on 3rd to 5th February, 2011
 21. Nishith Y. Bhatt and Satish J. Patel 2011 'Palaeoecologic significance of the trace fossils of the Mesozoic rocks of the Gangeswar dome, southeast of Bhuj, Mainland Kachchh, India' Paper presented at the National Conference on 'Recent Development in Geology, Mineral and Groundwater Resources of India', at Aurangabad on 11 and 12 February, 2011.

22. Nishith Y. Bhatt and Satish J. Patel 2011 Response of animal-sediment relationships in substrate control micro-niches in the intertidal zone around Mandvi, Gulf of Kachchh, Western India. Paper presented at the 7th International Conference on Asian Marine Geology (ICAMG) held from 11 to 14 October 2011 at the National Institute of Oceanography, Goa, India.
23. Nishith Y. Bhatt and Satish J. Patel 2011 "Sequence Stratigraphic significance of trace fossils of the Bhuj Formation, Southeast of Bhuj, Kachchh, Gujarat" Paper presented at XXIII Indian Colloquium on Micropalaeontology and Stratigraphy and International Symposium on Global Bioevents in Earth History organized by Bangalore University and Geological Society of India at Bangalore from 9th to 11th December, 2011.
24. Jagdish M. Patel, Nishith Y. Bhatt and Satish J. Patel 2011 "Sequence Stratigraphic interpretations of sedimentary cycles of Jhuran Formation (Upper Jurassic) of the Kas Hill, Northern Mainland Kachchh, Western India". Paper presented at XXIII Indian Colloquium on Micropalaeontology and Stratigraphy and International Symposium on Global Bioevents in Earth History organized by Bangalore University and Geological Society of India at Bangalore from 9th to 11th December, 2011.
25. Satish J. Patel, Jaquilin K. Joseph and Nishith Y. Bhatt 2011 "Sequence Stratigraphic Analysis of the Mixed Siliciclastic – Carbonate Sediments (Middle Jurassic) of the Patcham Island, Kachchh, Western India: An Ichnologic Approach". Paper presented at XXIII Indian Colloquium on Micropalaeontology and Stratigraphy and International Symposium on Global Bioevents in Earth History organized by Bangalore University and Geological Society of India at Bangalore from 9th to 11th December, 2011.
26. Nishith Y. Bhatt and Satish J. Patel 2012 "Sedimentology, Ichnology and Sequence Stratigraphic Study of Mesozoic Rocks, Southeast of Bhuj, Mainland Kachchh, Western India". Research paper presented at DST sponsored National level Field Workshop and Brainstorming Session on Geology of Kachchh Basin, Western India: Present Status and Future perspectives at KSKV Kachchh University, Bhuj, Kachchh held on 26th January to 29th January, 2012.
27. Satish J. Patel, Jaquilin K. Joseph and Nishith Y. Bhatt 2012 "Sedimentologic and Palaeoecologic Significance of the Middle Jurassic Trace Fossils of Patcham Island, Kachchh, Western India". Research paper presented at DST sponsored National level Field Workshop and Brainstorming Session on Geology of Kachchh Basin, Western India: Present Status and Future perspectives at KSKV Kachchh University, Bhuj, Kachchh held on 26th January to 29th January, 2012.
28. Nishith Y. Bhatt, Dipal A. Patel, Satish J. Patel and Hardik P. Patel 2012 "Neoichnology of the intertidal zone along the Navinal coast, Gulf of Kachchh, Western India". Research paper presented at XXVI Gujarat Science Congress 2012 on Climate, Water and Environment: Science for Sustaining Our Future organised on 26th February, 2012 by M.S. University of Baroda and Gujarat Science Academy at M.S. University of Baroda, Vadodara.
29. Paras M. Solanki, Nishith Y. Bhatt and Satish J. Patel 2012 "Occurrence of Ichnofossils near Godpar village, Southwest of Bhuj, Kachchh, Western India". Research paper presented at XXVI Gujarat Science Congress 2012 on Climate, Water and Environment: Science for Sustaining Our Future organised on 26th February, 2012 by M.S. University of Baroda and Gujarat Science Academy at M.S. University of Baroda, Vadodara.
30. Dipal A. Patel, Nishith Y. Bhatt, Satish J. Patel, Hardik P. Patel and Paras M. Solanki (2012) "Morphologic Analysis of *Uca*, *Ocypode* and *Scopiomera* Crab Burrows, Navinal Coast, Gulf of Kachchh, Gujarat, Western India" Paper presented at Regional Science Congress on Science for Shaping the Future of India jointly organized by the

- Maharaja Sayajirao University of Baroda and Indian Science Congress Association (Baroda Chapter), held on September 15-16, 2012 at Vadodara.
31. Jaquilin K. Joseph, Satish J. Patel and Nishith Y. Bhatt (2012) “Palaeoenvironmental significance of Trace Fossil of Kaladongar Formation (Middle Jurassic), Patcham Island, Kachchh, Western India”. Paper presented at Regional Science Congress on Science for Shaping the Future of India jointly organized by the Maharaja Sayajirao University of Baroda and Indian Science Congress Association (Baroda Chapter), held on September 15-16, 2012 at Vadodara.
 32. Nishith Y. Bhatt, Satish J. Patel and Jaquilin K. Joseph (2012) “Significance of trace fossils in Transgressive-Regressive Cycles: an example from the Callovian-Oxfordian sediments of the Gangeswar Dome, SE of Bhuj, Mainland Kachchh, India”. Paper presented at Annual International Conference on Geological and Earth Sciences (GEOS 2012), Singapore, 3 to 6 December, 2012. Copyright © GSTF 2012; ISSN: 2251-3361; doi: 10.5176/2251-3361_GEOS12.31.
 33. Nishith Y. Bhatt, Heman V. Majethiya, Jagdish M. Patel, Paras M. Solanki, Dipal A. Patel and Hardik P. Patel (2013) “Geomorphological study of the deltaic coast (west of Kori creek) Kachchh, Gujarat, Western India – Using remote sensing and GIS”. Paper presented at UGC sponsored National Seminar on “Geomorphology – Evolution of Landforms through Time” held at Geology Department, M. G. Science Institute on 08 and 09 March, 2013.
 34. Nishith Y. Bhatt, Heman V. Majethiya, Jagdish M. Patel, Paras M. Solanki, Dipal A. Patel and Hardik P. Patel (2013) “Study of geomorphic features and their distribution along Kachchh coastline, Gujarat, western India”. Paper presented at UGC sponsored National Seminar on “Geomorphology – Evolution of Landforms through Time” held at Geology Department, M. G. Science Institute on 08 and 09 March, 2013.
 35. Dipal A. Patel, Nishith Y. Bhatt and Satish J. Patel (2013) “Evolution of Mundra (Bharadimata) dune near Navinal coast, gulf of Kachchh, Gujarat, western India”. Paper presented at UGC sponsored National Seminar on “Geomorphology – Evolution of Landforms through Time” held at Geology Department, M. G. Science Institute on 08 and 09 March, 2013.
 36. Nishith Y. Bhatt and Satish J. Patel (2013) “Ichnology and Sequence Stratigraphy of Bhuj Formation, Khatrod Hill Range, SE of Bhuj, Kachchh, Western India” (Extended Abstracts). Paper presented at “International Conference on Recent Developments in Stratigraphy (ICRDS-2013)” organised by Deccan Education Society’s Department of Geology, Fergusson College, Pune from 14th to 16th December, 2013 in association with Geological Society of India, Palaeontological Society of India and Gondwana Geological Society.
 37. Drasti Gandhi, Siddharth Prizomwala, Kapil Mohan, Nishith Bhatt and B.K.Rastogi (2014) “Coastal Geomorphic Archives of Kachchh Coast: Implications in Coastal Response and Preservation Potential of Palaeotsunami Deposits”. Poster presented at 3rd Annual International Convention on “Advances in Earthquake Science” organised by Institute of Seismological Research, (Department of Science and Technology, Government of Gujarat), Raisan, Gandhinagar from 4th to 6th January, 2014.
 38. Nishith Y. Bhatt and Satish J. Patel (2014) “Palaeoecological significance of the Callovian-Oxfordian trace fossils of Gangeswar Dome, southeast of Bhuj, Mainland Kachchh, India” (Extended Abstracts). Paper presented at “The 9th International Congress on The Jurassic System” organized by Department of Geology, University of Rajasthan from 6th to 9th January 2014 at Jaipur.

39. Paras M. Solanki, Nishith Y. Bhatt, Satish J. Patel and Jagdish M. Patel (2014) "Ichnology of the Callovian-Oxfordian of Katrol Hill Range, Southwest of Bhuj, Kachchh, Western India" (Extended Abstracts). Poster presented at "The 9th International Congress on The Jurassic System" organized by Department of Geology, University of Rajasthan from 6th to 9th January 2014 at Jaipur.
40. Jaquilin K. Joseph, Satish. J. Patel and Nishith Y. Bhatt (2014) "Environmental significance of the trace fossils of Middle Jurassic rocks, Patcham island, Kachchh, western India" (Extended Abstracts). Paper presented at "The 9th International Congress on The Jurassic System" organized by Department of Geology, University of Rajasthan from 6th to 9th January 2014 at Jaipur.

Participation:

1. Dr. R.D. Shah have attended a workshop on "Exposure Meet on Chandrayan –1" organized by Sensors Development Area at Space Application Centre, Ahmedabad on 15th Dec, 2008.
2. Dr. R.D. Shah have organised, attended and presented a research paper in UGC sponsored State Level Seminar on "Recent Developments in Mineral Exploration Technology" held at M. G. Science Institute on 29 and 30th Aug, 2008.
3. Dr. R.D. Shah has attended a 3 day Western Regional Orientation Meet for State Evaluators held at Gujarat Science City organized by National Children Science Congress from 22nd to 24th Oct, 2009.
4. Dr. R.D. Shah have attended and presented a research paper on "Study of Glacial Dynamics" at XXIV Gujarat Science Congress 2010, Gujarat Science Academy and Gujarat University on 21-3-2010.
5. Dr. R.D. Shah have attended and presented a research paper on "Applications of GIS for combating malaria: A case Study" at UGC sponsored National Seminar on Current trends in Microbiological sciences, organized by Microbiology of M. G. Science Institute, Ahmedabad on 23rd and 24th June, 2010.
6. Dr. R.D. Shah have reviewed a research paper on " Bathymetric Prediction over a part of the Bombay High in the Western Off Shore using very high Resolution Satellite Gravity Data" to be published in Current Science.
7. Dr. R.D. Shah have attended a workshop on "Draft MMDR Act the Preparation of Mine Closure Plan" organized by MEAI, Ahmedabad Chapter, on 2-11-2010 at Ahmedabad.
8. Dr. R.D. Shah have attended a seminar on "Recent Trends in Mineral Exploration" organized by MEAI, Ahmedabad Chapter on 18-2-2011 at Ahmedabad.
9. Dr. R.D. Shah have attended one day seminar on "Land Acquisition and Society" organized by Bhavnagar Local Centre, MEAI, Ahmedabad Chapter on 23-11-2013.
10. Dr. R.D. Shah, Dr. N.Y. Bhatt and Dr. P.M. Solanki have organised and attended UGC sponsored State Level Seminar on "Recent Developments in Mineral Exploration Technology" held at Geology Department, M. G. Science Institute on 29th and 30th Aug, 2008.
11. Dr. R.D. Shah, Dr. N.Y. Bhatt and Dr. P.M. Solanki have organised and attended Chandangiri Goswami Memorial Seminar on 'Career in Geology' held at Geology Department, M. G. Science Institute on 19th January, 2009.
12. Dr. R.D. Shah, Dr. N.Y. Bhatt and Dr. P.M. Solanki have participated in Paper meet on "Lignite Mining, UCG and related issues", organized by Mining Engineer's Association of India (MEAI), Ahmedabad chapter, on 31-05-2009 at GMDC Auditorium, Ahmedabad.
13. Dr. R.D. Shah, Dr. N.Y. Bhatt and Dr. P.M. Solanki have attended a workshop on "Environment Management in Mining and Power Sector" organized by Gujarat

- Mineral Development Corporation on 10th and 11th June, 2009 at Ahmedabad and presented a research paper on Hydrogeological Studies in Mining Area.
14. Dr. N.Y. Bhatt have participated in The Second Asia Pacific Conference on 'Luminescence and Electron Spin Resonance Dating' held at the Physical Research Laboratory, Ahmedabad, India during November 12-15, 2009.
 15. Dr. N.Y. Bhatt and Dr. P.M. Solanki have Workshop under the Star College Scheme of Department of Biotechnology (DBT) New Delhi on "Data Analysis Using MS-Excel" organized by Department of Statistics, M. G. Science Institute, Ahmedabad on 08th March, 2010.
 16. Dr. N.Y. Bhatt and Dr. P.M. Solanki have Presented a paper on "Trace Fossil occurrences and their Environmental Significance in the Mesozoic Sediments of Sir Edmund Lake area, South of Bhuj, Kachchh, Western India" in "XXIV Gujarat Science Congress 2010" organized jointly by Gujarat University, Ahmedabad and Gujarat Science Academy, Ahmedabad on 21st March, 2010 at Gujarat University, Ahmedabad.
 17. Dr. N.Y. Bhatt have Participated in National Conference 'Geomicrobiology and Microbe-Sediment Interaction' and presented a paper on 'Exploring microbes from saline soils/environments' along with Dr. Vivek N. Upasani on 19th August, 2010 at Vadodara.
 18. Dr. N.Y. Bhatt have Participated and presented a paper in National Seminar on Sedimentary Basins of India Organized by Gondwana Geological Society on 22-23 October, 2010 at Nagpur.
 19. Dr. N.Y. Bhatt and Dr. P.M. Solanki have presented a paper on "Burrow morphology produced by Uca, Ocypode and Scopiomera (sand bubbler) crabs on the Intertidal zone of Navinal Coast, Gulf of Kachchh, Gujarat, Western India" presented at the Paper presentation competition - Science Excellence organized by Department of Botany, Gujarat University, Ahmedabad under Swarnim Gujarat, Vignan Parishad on 8th January, 2011.
 20. Dr. R.D. Shah, Dr. N.Y. Bhatt and Dr. P.M. Solanki have participated in International conference at Institute of Seismological Research (ISR), Raisan, Gandhinagar on 22, 23, 24 January, 2011. Dr. R.D. Shah, Dr. N.Y. Bhatt and Dr. P.M. Solanki have presented a Poster on 'Ground Deformation and Liquefaction Structures formed due to 2001 Kachchh Earthquake on the Sabarmati River bed near village Motiboru, Ta. Dhandhuka, Dist. Ahmedabad, Gujarat, India'.
 21. Dr. N.Y. Bhatt have participated and presented a paper in the National Conference on 'Recent Development in Geology, Mineral and Groundwater Resources of India', at Aurangabad on 11 and 12 February, 2011.
 22. Dr. P.M. Solanki have participated in Training of Teachers programme with "A" grade on "Geomatics in Infrastructure Design and Management: Water Sector" organized by Department of Civil Engineering, Nirma University and offered by Anchor Institute for Infrastructure Sector (Sponsored by Industries Commissionerate, Government of Gujarat), CEPT University, Ahmedabad during 1-6 August, 2011.
 23. Dr. N.Y. Bhatt have participated in XXIII Indian Colloquium on Micropalaeontology and Stratigraphy and International Symposium on Global Bioevents in Earth History organized by Bangalore University and Geological Society of India at Bangalore from 9th to 11th December, 2011 and presented a paper on "Sequence Stratigraphic Significance of Trace Fossils of the Bhuj Formation, Southeast of Bhuj, Kachchh, Gujarat."

24. Dr. N.Y. Bhatt and Dr. P.M. Solanki have participated in Workshop on “Geoinformatics for Urban Planning” organized jointly by the Ahmedabad Chapters of Indian Society of Remote Sensing (ISRS), Indian Society of Geomatics (ISG), Indian Meteorological Society (IMS) and Indian National Cartographic Association (INCA) on 7th January, 2012 at Space Application Centre (SAC), ISRO, Ahmedabad.
25. Dr. N.Y. Bhatt have participated in National Level Field Workshop and Brain Storming Session on Geology of Kachchh Basin, Western India: Present Status and Future Perspectives organized by Department of Earth and Environmental Sciences, KSKV Kachchh University, Bhuj, Kachchh, sponsored by Department of Science and Technology, Government of India, from 26 to 29 January, 2012, at Bhuj, Kachchh. A paper is presented on ‘Sedimentology, Ichnology and Sequence Stratigraphic Study of Mesozoic Rocks, Southeast of Bhuj, Mainland Kachchh, Western India’ by Nishith Y. Bhatt and Satish J. Patel.
26. Dr. R.D. Shah, Dr. N.Y. Bhatt and Dr. P.M. Solanki have Participated in Workshop under the Star College Scheme of Department of Biotechnology (DBT) New Delhi on “E-Content Development and Management using Freeware” organized jointly by Department of Physics & Microbiology, M. G. Science Institute, Ahmedabad on 11th & 12th February, 2012.
27. Dr. N.Y. Bhatt and Dr. P.M. Solanki have Participated in “XXVI Gujarat Science Congress 2012” organized jointly by The Maharaja Sayajirao University of Baroda, Vadodara and Gujarat Science Academy, Ahmedabad on 26th February, 2012 at the Maharaja Sayajirao University of Baroda, Vadodara. Presented a paper on “Ichnofossils of Bhuj Formation near Godpar, Southwest of Bhuj, Kachchh, Western India”.
28. Dr. R.D. Shah, Dr. N.Y. Bhatt and Dr. P.M. Solanki have Participated in National Seminar on “Mining, Environment and CSR – Current trends and Future Scenario” organized jointly by Mining Engineer’s Association of India (MEAI) – Ahmedabad Chapter and Gujarat Mineral Development Corporation (GMDC) at the auditorium of GMDC, Ahmedabad on 13th and 14th July, 2012.
29. Dr. R.D. Shah, Dr. N.Y. Bhatt and Dr. P.M. Solanki have organised and participated in UGC sponsored National Seminar on “Geomorphology – Evolution of Landforms through Time” held at Geology Department, M. G. Science Institute, Ahmedabad on 08 and 09 March, 2013.
30. Dr. R.D. Shah, Dr. N.Y. Bhatt and Dr. P.M. Solanki have participated in National Seminar on “Emerging Trends of Outsourcing Mining - the MDO Concept” organized by Mining Engineer’s Association of India (MEAI) – Ahmedabad Chapter and at the GMDC auditorium, Ahmedabad on 10th August, 2013.
31. Dr. R.D. Shah, Dr. N.Y. Bhatt and Dr. P.M. Solanki have participated in Gujarat Council on Science and Technology (GUJCOST) sponsored Seminar on “Climate Change” organised by M.G. Science Institute at Auditorium (Theatre 5) of M.G. Science Institute, Ahmedabad on 10th August, 2013.
32. Dr. R.D. Shah, Dr. N.Y. Bhatt and Dr. P.M. Solanki have participated and represented the stall of Geology Department of M. G. Science Institute at the “1st International Exhibition and Conference on Mining, Machinery and Equipment” in the India Mining 2013 during 25-27 October, 2013 held at Mahatma Mandir, Gandhinagar.
33. Dr. N.Y. Bhatt have participated in “International Conference on Recent Developments in Stratigraphy (ICRDS-2013)” organised by Deccan Education Society’s Department of Geology, Fergusson College, Pune from 14th to 16th December, 2013 in association

with Geological Society of India, Palaeontological Society of India and Gondwana Geological Society.

34. Dr. R.D. Shah, Dr. N.Y. Bhatt and Dr. P.M. Solanki have Participated in 3rd Annual International Convention on “Advances in Earthquake Science” organised by Institute of Seismological Research, (Department of Science and Technology, Government of Gujarat), Raisan, Gandhinagar from 4th to 6th January, 2014.
35. Dr. N.Y. Bhatt and Dr. P.M. Solanki have Participated in “The 9th International Congress on The Jurassic System” organized by Department of Geology, University of Rajasthan, Jaipur from 6th to 9th January 2014.

Department of Mathematics

1. **Name of the department:** Mathematics
2. **Year of Establishment:** 1946
3. **Names of Programmes / Courses offered**

a. B. Sc. Mathematics

4. **Names of Interdisciplinary courses and the departments/units involved:**

NA

5. **Annual/ semester/choice based credit system (programme wise):**

The department has been following the University pattern from the year of establishment. The first year to the third year students are into the semester system as the University introduced the CBCS structure from 2011 onwards.

6. **Participation of the department in the courses offered by other departments:**

Currently we do not have a participative course

7. **Courses in collaboration with other universities, industries, foreign institutions, etc.**

The department does not run a course in collaboration with other universities.

8. **Details of courses/programmes discontinued (if any) with reasons:**

No

9. **Number of Teaching posts:**

	Sanctioned	Filled
Professors	0	0
Associate Professors	2	1
Adyapak Sahayak	4	0

10. **Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)**

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr.S. G.YAdav	M. Sc., Ph. D.	Associate Professor	Mathematics	22 years (On lian from Feb 2014)	-
Prof. B.M.Patel	M. Sc.	Associate Professor	Mathematics	28 years at UG and 10 years at PG	-

11. **List of senior visiting faculty:** Nil

12. **Percentage of lectures delivered and practical classes handled (programme wise) by**

temporary faculty:

Name	Duration	% of Theory lecture	% of Theory practical classes
Dr.S. G.YAdav	June 2013- Feb 2014	20%	15%
Prof. B.M.Patel	June.2013- Till today	20%	20%
Ms. Kalpana Koshti	June.2013- Till today	20%	20%
Ms. Nidhi Panchal	June.2013- Till today	20%	20%
Mr. Sanjay Rathod	June.2013- Till today	20%	25%

13. Student -Teacher Ratio (programme wise):

Year	No of Students having Mathematics Subject		
	FY	SY	TY
2012-13	1:78	1:22	1:9
2013-14	1:42	1:37	1:6

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

The department does not have any administrative staff.

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil/PG.:

One of the faculty has a PhD.

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

Nil

17. Departmental projects funded by DST, DST-FIST; UGC, DBT, ICSSR, etc. and total grants received: -**18. Research Centre /facility recognized by the University: Nil****19. Publication: Nil****20. Areas of consultancy and income generated: Nil****21. Faculty as members in**

a) National committees : Nil

b) International Committees: Nil

c) Editorial Boards

B. M. Patel served as a member of Board of studies for the Mathematics, Gujarat university

22. Student projects

a) Percentage of students who have done in-house projects including inter-departmental/programme: Nil

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/other agencies: Nil

23. Awards/ Recognitions received by faculty and students;

Year	Name of the achiever	Achievement
2011-12	Laxmi Chitra	Gold Medalist
2010-11	Shikha Jain	Gold Medalist
2009-10	Monika	Gold Medalist
2008-09	Shweta Sighal	Gold Medalist
2010-11	Shah Hena R(TY)	2nd Rank at Uni
2010-11	Iyer Laxmi Chitra (SY-MS)	1 st Rank at Uni
2009-10	Shah Het (FY)	First in Prof. A. R. Rao Competition
2010-11	Shah Het (SY)	First in Prof. A. R. Rao Competition
2011-12	Shah Het (TY)	Third in Prof. A. R. Rao Competition
2010-11	Shah Het (TY)	First in poster Presentation at Science Excellence 'The Pappus Chain Theorem'.
2011-12	Shah Het (TY)	Second in paper Presentation at Science Excellence 'Ternary Expansion & the Cantor set'.
2010-11	Shah Het (SY)	3 rd Rank in 42 nd National Mathematics Talent Competition conducted by AMTI
2010-11	Shah Het(SY)	2 nd Mathematics Elocution Competition conducted by Mathematics Department, St. Xavier's College
2010-11	Goswami Vaishali FY)	Second in Prof. A. R. Rao Competition
2008-09	Anal (TY)	First in Presentation at Science Excellence
2010-11	Bhargav Suthar (TY)	First in Poster Presentation
2010-11	Laxmi Chitra (SY)	1 st Mathematics Elocution Competition conducted by Mathematics Department, St. Xavier's College

Over and above, we have been consistently bagging being in the first 50 of the University result.

Year	Rank Position		
	FY	SY	TY
2009-10	2 nd , 3 rd	1 st , 13 th , 20 th	3 rd , 25 th , 26 th , 33 rd
2010-11		1 st , 3 rd , 7 th , 36 th	1 st , 2 nd , 4 th , 11 th , 16 th , 17 th , 22 nd , 38 th , 44 th , 47 th , 49 th
2011-12	22 nd , 24 th , 25 th	11 th , 33 rd , 44 th	1 st , 3 rd , 7 th , 36 th

24. List of eminent academicians and scientists/ visitors to the department

Nil

25. Seminars/ Conferences/Workshops organized & the source of funding

a) State : 01 State level seminar on Chaos Theory was organized funded by GUJCOST in 2008

b) International: Nil

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			M	F	
BSc Sem I	1714	335	228	107	
BSc Sem III	335	91	57	34	
BSc Sem V	91	23	8	15	

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
B. Sc Sem II	81.93	18.07	---
B. Sc Sem IV	91.43	8.57	---
B. Sc Sem VI	91.31	8.69	---

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? -

29. Student progression

Student progression	Against % enrolled
UG to PG	25%

30. Details of Infrastructural facilities

a) Library:

The main library houses about 2000 books of Mathematics.

b) Internet facilities for Staff & Students:

There is a computer laboratory in the department with internet facility for faculty.

c) Class rooms with ICT facility:

As and when required, common College facilities are used by the department.

d) Laboratories:

There is a computer laboratory in the department with internet facility for faculty.

31. Number of students receiving financial assistance from college, university, government or other agencies:

-

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts:

The following are the workshops organized by the department.

Date	Resource Person	Topic	Beneficiaries
15 th March 2010	Dr. Hardik Soni Prof. Mathematics, Chimanlal Patel Institute of Computer Applications.	Different aspects of MATLAB tools	Students and faculties
16 th March 2010	Dr. Nita Shah Prof. Mathematics Dept.	Versatility of MATLAB software for mathematical problems.	Students and faculties

33. Teaching methods adopted to improve student learning:

- a. Assignments are given to students for practice
- b. Seminars are conducted for students
- c. AV facility is used to discuss important and difficult topics in Mathematics.
- d. Students are motivated to appear in the mathematics competitions such as A.R.Rao competition, Madhava Mathematics competition etc.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

- a. Dr. S. G. Yadav has been appointed as a Vice Chancellor at the Teachers University, Gandhinagar. Earlier he worked as a vice chancellor of KSKV University, Katchch.
- b. Prof. B. M.Patel has served as a Judge at the state level competition for Maths and Science held by Jilla Sikshan Talim Bhavan, Gandhinagar

35. SWOC analysis of the department and Future

Strength:

- Good and in depth, student-oriented teaching.
- Willing to solve the difficulties (curricular/co curricular) of students
- Approachable to students.

Weakness:

- Small department. Still at least five faculties are required.

Opportunities:

- More number of seminars/workshops can be organized.
- Few COs can be established; course preparation for entrance exams.
- A COP for “free mathematical software” can be introduced.

Challenges

- Small Department
- Not well equipped (Scanner and some minor facilities).

Department of Microbiology

- 1. Name of the department:** Microbiology
- 2. Year of Establishment:** 20 July 1966
- 3. Names of Programmes / Courses offered**
 - B. Sc. Microbiology
 - UGC-COP (Diploma in Bioinformatics)
- 4. Names of Interdisciplinary courses and the departments/units involved:**

The Microbiology department and other departments participate in running the UGC-COP courses in Bioinformatics and Biotechnology.
- 5. Annual/ semester/choice based credit system (programme wise):**

The department has been following the Annual pattern as per Gujarat University guidelines from the year of establishment. Currently, it follows the Choice Based Credit System (CBCS) introduced by the university since 2011. Admissions are purely on the merit basis. All faculty members are involved in the designing and reviewing the syllabus under CBCS introduced by the Gujarat University. They also deliver lectures through BISAG live telecast and CDs.
- 6. Participation of the department in the courses offered by other departments:**

The faculty members participate in the teaching of Elective and COP courses by the other departments. This gives the students an advantage of developing better skills and sharing knowledge by faculty from other subjects.
- 7. Courses in collaboration with other universities, industries, foreign institutions, etc.**

None
- 8. Details of courses/programmes discontinued (if any) with reasons:**

The department has not discontinued any programme
- 9. Number of Teaching posts:**

Positions	Sanctioned	Filled
Professors	0	0
Associate Professors	4	4
Asst. Professors	2	0
Adhyapak Sahayaks	2	1

- 10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.)**

Name	Qualification	Designation	Specialization	Exp/ Years	No. of Ph. D. Students Guided
Mrs. Sneha P. Pandya	M. Sc. , M. Phil.	Assoc. Prof. & Head	Microbiology	35	-

Dr. Mrugesh D. Shukla	M. Sc., Ph. D,	Assoc. Prof.	Mushroom cultivation, Waste Composting	30	Applied for Guide ship
Dr. Vivek N. Upasani	M. Sc, Ph. D., Post-doc., PGDIM (IGNOU), CCC+ (BAU), Certificate in BOTP (GSBTM)	Assoc. Prof. , Member Secretary, DBT Star College Scheme	Microbial Ecology and Biotechnology	26	3 students are registered for Ph.D.
Dr. Noopur R. Goyal	M. Sc., Ph. D.	Assoc. Prof.	Environmental Microbiology	18	Applied for Guide ship in Gujarat University
Dr. Payal M. Patel	M. Sc., Ph. D.	Adyapak Sahayak	Environmental Microbiology	06	-

11. List of senior visiting faculty: NA

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: NA

13. Student -Teacher Ratio (programme wise):

The current teacher student ration is FY (15:1); SY (20:1); TY (18:1)

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Three Lab Assistants (1 permanent, 02 vacant)

Three laboratory peons (1 permanent, 02 vacant)

One store keeper (vacant)

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil/PG.:

Currently out of five faculty members one has obtained M. Phil. Degree, four with doctorate, one with Post –doctorate. Two of them are Ph. D. guide.

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

Sr. No.	Title of Project	Funded by	Completed / in progress	Date of Starting
1.	Study of Biodiversity and Bioprospecting of Mushrooms.	GUJCOST, Minor Res. Project.	Completed 2009.	October 5, 2004.
2.	Fungal Biodiversity of Jessor Forest	GEER FOUNDATION Govt. of Gujarat	Completed 2006	May 2005

17. Departmental projects funded by DST, DST-FIST; UGC, DBT, ICSSR, etc. and total grants received:

The department has received Rs. 11.00 lakh grants for promoting Life Sciences and provides hands on training to the students and faculty of the college and other institutes under the DBT Star College Scheme (2009-10 to 2012-13)

18. Research Centre /facility recognized by the University:

The department has established an instrument laboratory under the DBT Star College Scheme and upgraded the laboratory facilities from UGC, DBT and other grants. This has helped the students of B. Sc., M. Sc. and Ph. D. to undertake research work. All faculty members are involved in this activity.

19. Publication:

List is given at the end of the document

20. Areas of consultancy and income generated:

Dr. Noopur R Goyal worked as a consultant for the development of Xanthan gum in GumPro Industry, Kalol GIDC

21. Faculty as members in

a) National committees b) International Committees c) Editorial Boards

1. Dr. Mrugesh D. Shukla

Sr. No.	Organization	Type of membership	Position	Year
1	Tapansmruti Trust	Permanent voting member	Member of committee	August 2001.
2	Sterling Hospital Ahmedabad	Clinical Research Ethics Committee.	Non Medical Scientist	June 2006
3	Jagruti Ethics Committee.	Clinical Research Ethics Committee	Non Medical Scientist	December 2009
4	L.M.C.P. Ahmedabad	Clinical Research Ethics Committee	Non Medical Scientist	March 2007.
5	Environmental health	Life member	Member	June 1982
6	Association of Microbiologists of India	Life member	Member	June 1990.
7	Mushroom Society of India.	Life member	Member	March 1996.
8	Gujarat Science Academy.	Life member	Member	August 1999.

2. Dr. Vivek N. Upasani

Sr. No	Organization	Type of membership	Date of joining
1	Indian Association of Aquatic Biologists (IAAB)	Life-member (No. LM 439/2008)	01.02.2008
2	Association of Microbiologists of India (AMI)	Life-member (No. 1275/1992)	1992
3	Bioinformatics Institute of India (BII)	Life-member	1995

4	American Society for Microbiology (ASM), Washington DC, USA,	Annual	1989-96
5	Gujarat Bioscience Society, Ahmedabad	Annual	1990-92

22. Student projects

a) Percentage of students who have done in-house projects including inter-departmental/programme:

- 40 UG students have completed research projects and six are working in the current year.
- In all 20 M. Sc. Sem. IV (2008-12) students have completed their dissertation from different colleges / universities as a part of their Gujarat University syllabus requirements.

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/other agencies:

In all 10 B. Sc. students have completed their industrial training in various “Biofertilizers production” under DBT Star College Scheme.

23. Awards/ Recognitions received by faculty and students;

1. Dr. Vivek N. Upasani is recognized as a Ph. D. of the following universities.

- Kadi Sarva Vishwavidyalaya, Gandhinagar, Gujarat, India
- JJTU, Rajasthan

2. Dr. Noopur R. Goyal

- Co guide for Ph D thesis Bioconversion of cellulosic material and organic acid production
- Recognized PhD supervisor in Pacific University

24. List of eminent academicians and scientists/ visitors to the department

Sr. No.	Name	Designation	Purpose
1.	Dr. Suman Govil	Advisor, DBT, New Delhi	DBT Site visit, Advisory Committee, Keynote speaker UGC National Seminar
2.	Dr. Manjit Singh	Director, Mushroom Research Centre, Solan	Speaker, UGC National Seminar
3.	Dr. T. Satyanarayana	UDSC, New Delhi	Speaker, UGC National Seminar
4.	Dr. Bharat Chattoo	Ex-Coordinator, Biotechnology, M. S. University, Vadodara	DBT Site visit, UGC National Seminar
5.	Dr. Gita Sharma	Hyderabad	Speaker, UGC National Seminar
6.	Dr. Mahesh Patel	Wockhardt, Aurangabad	Speaker, UGC National Seminar

7.	Dr. Rohit Sharma	Punjab University, Chandigarh	Speaker, UGC National Seminar
8.	Dr. Monika Sharma	Panjab University, Chandigarh	Speaker, UGC National Seminar
9.	Dr. V. C. Joshi	Himalaya Int. Ltd. Visnagar.	Speaker, UGC National Seminar
10.	Dr. Rustom Modi	Indus Biotherapeutics	Speaker, UGC National Seminar
11.	Dr. Rajiv K. Shah	AAU, Anand	Speaker, UGC National Seminar
12.	Dr. Prabhudas Patel	GCRI, Ahmedabad	Speaker, UGC National Seminar
13.	Dr. Vinod Nigam	Birla Institute of Scientific Research (BISR), Jaipur	Speaker, UGC National Seminar
14.	Dr. S. R. Dave	Prof. & Head, Microbiology, Gujarat University, Ahmedabad.	Speaker, UGC National Seminar
15.	Dr. Upendra Jani	Hester Biosciences Ltd., Kadi	Speaker, UGC National Seminar
16.	Mr. M. C. Sharma	Kadi Serva Vidyalaya, Kadi	Speaker, UGC National Seminar DBT Star College Scheme
17.	Dr. Ajit Menon	AristoPharma, Daman	Speaker, UGC National Seminar DBT Star College Scheme / Microbiology Society of M. G. Science (MSMG)
18.	Dr. C. G. Joshi	Anand Agriculture University (AAU), Anand.	Speaker, GSBTM National Seminar
19.	Dr. Rajababu Vyas	Anand Agriculture University (AAU), Anand.	Speaker, GSBTM National Seminar
20.	Dr. K. Narayanasamy	Sphaerapharma, New Delhi.	Speaker, GSBTM National Seminar
21.	Mr. Deepak Gupta	Intas Biopharmaceuticals, Ahmedabad.	Speaker, GSBTM National Seminar
22.	Dr. Shilin Shukla	Director, GCRI, Ahmedabad	Guest Lecture, DBT Star College Scheme
23.	Mr. T. K. Solanki	Dep. Director, MSME, Ahmedabad, GoI	Guest Lecture, DBT Star College Scheme
24.	Dr. B. V. Patel	Dean, Faculty of Science, Guj. Univ.	Microbiology Society of M. G. Science (MSMG)

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National:

The department organized **Two National Seminars**:

- 1) UGC National Seminar **Microbes@MGSc2010** “**Current Trends in Microbiological Sciences**” at Ahmedabad Management Association, Ahmedabad-9, 23rd & 24th Jan. 2010. There were 380 participants and 17 Guest lecturers from various reputed universities / institutes / industry of India.
- 2) GSBTM National Seminar **Microbes@MGSc2011** “**Current Trends in Microbial Biotechnology**” at Ahmedabad Management Association, Ahmedabad, 2nd Jan. 2011.

There were 280, participants, and four distinguished guest speakers.

b) DBT Star College activities

1. Workshop/Seminar:

1. **Students training programme in Bioinformatics 29 Oct. 2010. Ms. Toral Joshi, Xcellon, Ahmedabad** delivered talks and provided hands-on training on: Bioinformatics & Comparative Genomics, BLAST & FASTA and Phylogenetics. Participants 10
2. **Hands on training programme for students of the department on: “Immunodiffusion Techniques & Plasmid DNA isolation” on 8th & 9th Feb. 2011. Mrs. Sneha P. Pandya & Dr. Vivek N. Upasani** imparted the training. This gave the students an exposure to work with micropipettes, and understanding of molecular biology protocols. Participants: 33
3. **Teacher’s training programme in Bioinformatics** under the DBT Star College Scheme on **11 Feb. 2011**. Faculty members from various departments participated. **Mr. John J. George**; Christ College, Rajkot delivered a talk and provided hands-on training on: **“Rational Drug Designing”**. Participants 19
4. **Teacher’s training: “Molecular Biology Workshop”** in collaboration with Chromus Biotech, Bangalore on **3rd to 5th March 2011**. Faculty members from various departments participated. The expert team from Chromus Biotech provided hands-on training on PCR, GMO detection, RAPD profiling, Restriction mapping, Gene cloning (GFP gene), and DNA sequencing – Chromatogram analysis, etc. Participants 09.
5. Three groups of T. Y. B. Sc. students carried out research projects on “Sterility Testing of Herbal eye drops”, “Cultivation of extremely halophilic bacteria” and “Mushroom cultivation”.
6. Students visited the Stem Cell Culture and Microbiology laboratory facilities at Apollo Hospital.
7. One student went for a training programme for JNU M. Sc. (Biotechnology) Entrance test preparation organized at St. Xavier’s College, Ahmedabad sponsored by Gujarat State Biotechnology Mission (GSBTM), Gandhinagar.
8. Three (3) students were sent for a Molecular Biology Workshop organized by Department of Biosciences, Ganpat University, Kherva.
9. Five (5) students had undergone training on “Biofertilizers production” for 5 days at Shree Biocare Research Ltd., Ahmedabad. They learnt about the mass production of PSB Biofertilizers.

10. Two students attended the workshop on “Mangroves” organized by Dept. of Environmental Sciences, Kutch University.
11. Two seminars on Entrepreneurship were organized for students (160) in collaboration with Entrepreneurship Institute of India (EDI), and MSME (GoI).
12. A three days seminar on **“Entrepreneurship Awareness Camp”** was organized in collaboration with **“TiE- The Indus Entrepreneurs”** organization for students (54 participants) from 14th to 16th Feb. 2013. This was to encourage the spirit of entrepreneurship and its fundamentals. **Mr. T. K. Solanki**, Deputy Director (MSME, Ahmedabad, GoI) had also delivered a lecture along-with other speakers.
13. Demonstration of: **“Immunodiffusion: RID and Ouchterlony techniques”** by Dr. M. D. Shukla and Dr. Payal M. Patel; **“Rapid Identification of Bacteria by Hi-media: HI25 Enterobacteriaceae kit”** by Prof. Sneha P. Pandya and Dr. Shukla; and **“Molecular Biology techniques: gDNA isolation from bacteria and Agarose gel electrophoresis of DNA”** by **Dr. Vivek N. Upasani** and **Dr. Noopur R. Goyal** was organized from 16th to 18th Jan. 2013 for the T. Y. B. Sc. students.
14. For the first time in the teaching of microbiology a workshop on **“Hands on training in Photomicrography”** was organized for all the Semester-II students from 11th to 16th March 2013.

c) Participation in workshops and seminars at other institutes

1. Three students attended the Regional Science Congress on **“Science for Shaping the Future of India”** organized jointly by The Maharaja Sayajirao University (MSU) and Indian Science Congress Association (Baroda Chapter) at Vadodara from 15th to 16th Sept. 2012. **Dr. Shailesh Nayak**, Secretary, Ministry of Earth sciences (GoI) and **Prof. C. Manoharachary** delivered guest lectures during the plenary session.
2. Nine students participated in the attended the seminar on **“Training & hands on Molecular Biotechnology Tools & Techniques”**, organized by Dept. of Pharmaceutical Biotechnology sponsored by DBT, at Ganpat University, 10th to 12th Oct. 2012.
3. Two T. Y. B. Sc. students attended the 53rd Annual conference of Association of Microbiologists of India (AMI) **“Microbial World: Recent Innovations and Future Trends”**, organized by **KIIT University, Bhubaneswar, Odisha** from 22nd to 25th Nov. 2012. They got an opportunity to meet and listen to famous microbiologists / scientists, visit Chilka Lake, Konark Sun temple, etc.

4. Seven students attended the seminar on “**Recent Advances in Stem Cell Research: Promises & Potentials, Clinical & Experimental Aspects**”, organized by Dept. of Pharmaceutical Biotechnology sponsored by **ICMR**, at **Ganpat University, Kherva** on 28 Dec. 2012.
5. Fifteen students (including participants) attended the state level competitions on “**Gujarat Intergrated Bio Network (GIBioN)**” organized by **J. & J. College of Science, Nadiad** and **GSBTM** hosted at St. Xavier’s College, Ahmedabad on 20th Jan. 2013. **Ms. Poonam Verma** secured First rank and a trophy for **T. Y. Article Writing** on “**Advanced techniques for studying non-culturable organisms**”.
6. Four students attended the “**Annual meet of Gujarat Science Congress**” at **CHARUSAT University**, Changa on 24th Feb. 2013.
7. Students and **Dr. V. N. Upasani** from the department participated in one day seminar on “**Recent Advances in Biotechnology**”, held at **Institute of Life Sciences Ahmedabad University** on 3rd Mar. 2013. Dr. B. K. Jain, chaired one of the session.

d) Industrial Visit

A group of 27 students and two staff members (**Dr. M. D. Shukla** and **Dr. Payal M. Patel**) visited the “**Madhur Dairy**” at Gandhinagar on 14 Feb. 2013. They observed the whole procedure from delivery of raw milk, its testing, separation of fats, pasteurization, cooling, packaging of milk, and production of ghee and other sweets, etc. They also visited the famous Jain **Ghantakarna Mahavir** temple at **Mahudi**.

Teachers activity

Workshop, seminar conducted / attended

- Dr. V. N. Upasani presented a paper at SAB Conference at Kolhapur.
- A two day workshop on “e-content development and management using freeware” was organized by Prof. U. V. Shah and Dr. V. N. Upasani on 3rd & 4th Feb. 2012. Nineteen faculty members different departments of the college participated.

Training course conducted / attended.

- Dr. V. N. Upasani attended a “Computer-aided Drug Designing (CADD)” workshop organized by Institute of Life Sciences, Ahmedabad University.

Guest lectures (Please mention Name, Designation, host institute of guest faculty invited)

1. Dr. Mahesh N. Jivani, Associate Professor, In-charge Head, Electronics Department, Saurashtra University, Rajkot; Dr. Dilip Barad, Associate Professor, Head, Dept. Of English, Bhavnagar University, Bhavanagar; and Prof. H. I. Sarvaiya, Asst. Professor & Head, Department of English, Maninagar Science College, Ahmedabad delivered

lectures and training on Introduction to ICT and e-content generation”, “LMS (Moodle)” and “Video generation and editing” respectively.

2. Mr. Pradip Sanghai, Deputy Director, MSME (GoI) and his team delivered lectures on Entrepreneurship on 18th Nov. 2011.
3. Mr. Mayank Upadhyay also delivered a lecture on entrepreneurship on 20 Oct 2011.
4. Dr. Aysha Rafique, Dr. M. D. Shukla, and Dr. V. N. Upasani guided M. Sc. Microbiology & Biotechnology dissertation students from S. P. Univ., V. V. Nagar (Total no. of students: 7)
5. A workshop on “**Technology Enhanced Learning (TEL)**” was organized by the Microbiology and Physics department in association with **CLASSLE Knowledge Pvt. Ltd.**, partners with **NPTEL (IIT, Madras)** in the UGC sponsored Embedded Design Lab. facility on 22 Jan 2013. Faculty members from various departments and other colleges participated in this training. This gave an opportunity to learn about the National Programme on Technology Enhanced Learning (NPTEL), a Govt. of India sponsored collaborative educational programme on development of teaching aids and it’s sharing through the internet. Seventy seven faculty members including four students participated in two sessions.
6. **Prof. Sneha P. Pandya, Dr. V. N. Upasani, Dr. N. R. Goyal and Mr. Harshil Bhatt** participated in a workshop on “**Animations in Biology**” organized by the department between 25th to 30th March 2013. **Mr. Niyant Chavda** from **Gateway Education** imparted training on animations using Macromedia Flash.
7. A two day Hands on training workshop for students on “MS-Office” was organized on 6th and 7th Oct. 2012.

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			M	F	
BSc Sem I	2789	105	19	86	
BSc Sem III	105	74	13	61	
BSc Sem V	74	71	12	59	

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
F. Y. B. Sc.	100	Nil	Nil
S. Y. B. Sc.	100	Nil	Nil
T. Y. B. Sc.	100	Nil	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Four.

29. Student progression

Student progression	Against % enrolled
UG to PG	70
PG to M. Phil.	05
PG to Ph. D.	02
Ph. D. to Post-Doctoral	01
Employed Campus selection Other than campus recruitment	8/150 (last 5yr)
Entrepreneurship/Self-employment	No data available

30. Details of Infrastructural facilities

a) **Library:**

The central library has 2800 books.

b) **Internet facilities for Staff & Students:**

The department has an internet portal for faculty and Wi-Fi accessibility. The students can avail internet facility for referencing in the department.

c) **Class rooms with ICT facility:**

The department owns a portable LCD projector, which enables the faculty and students to give power point presentations for teaching and seminars respectively.

d) **Laboratories:**

Three labs: Total intake capacity is 120.

31. Number of students receiving financial assistance from college, university, government or other agencies:

No data available.

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts:

- Four popular lectures under DBT Star College Scheme & MSMG
- Students visited Apollo Hospital and Madhur Dairy, under DBT Star College Scheme
- TY seminars / assignments
- IYC 2011
- CAT online exam
- Students every year participate in the GiBion and Sci-excellence Seminar/Quiz/Poster competitions.

33. Teaching methods adopted to improve student learning:

In addition to regular classroom blackboard teaching method, the use of LCD/OHP/ seminars/study tours/industrial trainings/ competitions/popular lectures/ assignments /question paper solving etc. are used to improve student learning. BISAG lectures and online presentations on various topics are shown to the students.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Geology faculty are involved in Admission process/youth festival/ or any unassigned work for the good of students and society.

No.	Programme	Participation
1	NCC	3 students
2	Health Check-up camp for F. Y. B. Sc. students	1 Faculty + 5 students
3	Tree Plantation	
4	Blood Camp / Blood donations	2 Faculty +2 Staff

35. SWOC analysis of the department and Future

Strength:

The department has B. Sc. Microbiology and UGC-COP (Bioinformatics) courses. It is one of the premier and oldest department imparting teaching at undergraduate level in Gujarat University and the state. Several renowned microbiologists (Dr. S. G. Desai, Dr. R. B. Patel, etc.) have started their academic career from this department. All the faculty members have research degree (M. Phil. / Ph. D.). Most have teaching and research experience of more than 18 years. Every year there is a huge demand for admission by students scoring high percentage as it is the next choice after admissions to paramedical courses.

Students are encouraged to become members of the professional bodies and attend the seminars /workshops organized by such associations.

Weakness:

Deficit of staff due to government recruitment policy

Opportunities:

Students graduating from this department with good percentage have an opportunity to pursue M. Sc. (Microbiology / Biotechnology / Life Sciences / Biomedical Technology / Human Genetics / Food & Nutrition / Forensic Science, etc.). They can also go for MBA, Civil Services, Medical Technology Courses, etc. There are good job opportunities for the students in pharma companies, food & dairy industry, medical sales, academic, research institutes, patho-labs, etc.

Challenges

It has become increasingly difficult to find the placement for so many students completing their B.Sc. in Microbiology.

19. Publications:

A) Books

i. Prof. S. P. Pandya

Sr.No.	Title	Publisher	Edition	Date
1	Cell Biology and Biotechnology	Granth Nirman Board		
2	Sukshmajivanushastra Shabdavali” (English- Hindi- Gujarati)	Granth Nirman Board		2011

ii. Dr. Mrugesh D. Shukla

Sr. No.	Title	Publisher	Edition	Year
1	Fungal Biodiversity Of Jessor (A REPORT OF INVESTIGATION).	GEER Foundation, GOVT.OF GUJARAT Gandhinagar	-	2009

B) Journals

1. Dr. Mrugesh D. Shukla

Sr. No.	Title	Name of Journal / Book	Page No.	Vol.99	Month
1	Antimicrobial activity	Advances in biological sciences	55	7(1)	2008.
2	Bioautographical study	Advances in biological sciences	39	7(1)	2008.
3	Theoretical estimation	Advances in biological sciences	29	7(1)	2008.

2. Dr. Vivek N. Upasani

Sr. No.	Authors	Title	Journal	Peer reviewed/Impact factor
1.	Varjani Sunita J. and Upasani Vivek N.	Characterization of hydrocarbon utilizing <i>Pseudomonas</i> strains from crude oil contaminated samples.	International Journal of Scientific computing (2012) vol. 6 (2) pp. 120-125 (ISSN: 0973-578X).	Yes
2.	Varjani S. J., Rana D. P., Bateja S. and Upasani V. N.	Isolation and Screening for Hydrocarbon Utilizing Bacteria (HUB) from Petroleum Samples.	International Journal of Current Microbiol. and Appl. Sciences, (2013) vol. 2 (4), pp. 48-60 (Print ISSN: 2319-7692, E-ISSN: 2319-7706).	Yes/ 0.378
3.	Varjani Sunita J. and Upasani Vivek N.	Comparative studies on bacterial consortia for hydrocarbon degradation.	International Journal of Innovative Research in Science, Engineering and Technology, (2013) vol. 2 (10), pp. 5377-5383 (E-ISSN: 2319-8753)	Yes/1.672

3. Dr. Noopur R. Goyal

Sr. No.	Title	Name of Journal / Book	Page No.	Vol. No.	Month
1	A study of the growth of <i>Allium cepa</i> under some Photo catalytic conditions	Advances in Applied Science Research	315-320	2	2011
2	Impact of photo catalytically treated bleached dyes on growth of bacteria and fungi	Proceedings of National conference ATAST	66 -69		2012
3	A comparative study of the seed germination of <i>Phaseolus aureus</i> under some photocatalytic conditions	Life sciences Leaflets (LSIC2011), ISSN2277-4297(P) 0976 – 1098(O)	01- 08		2012
4	Photo catalytic treatment of some dyes solutions and its influence on the growth of <i>Allium cepa</i> (onion)	Acta Chimi. Pharm. Indica: ISSN 2277-288X	95-100	2(2)	2012
5	Isolation Identification and evaluation of a novel cellulose degrading fungus <i>Emericella nidulans</i>	Research Journal of BioTechnology	77 - 82	8(2)	2013

4. Dr. Payal M. Patel

Sr. No.	Title	Name of Journal / Book	Page No.	Vol.99.	Year
1	Fluoride: a major polluting component of ground water in North Gujarat Region	Proceedings of Taal2007: The 12 th World Lake conference: 245-249.	245-249		2008
2	Lipase production by Bacillus Sp. Under different physico- chemical conditions.	Journal of Cell and Tissue Research (ISSN:0973-0028)	913-916	Vol.7(1)	2007
3	“Herbal plants extract and its combination showing antibacterial activity against Staphylococcus aureus (MTCC 96), Pseudomonas aeruginosa (MTCC 741)”	Journal of Veterinary Pharmacology and Toxicology (ISSN0972-8872)	45-53.	Vol.6 No 1-2;	2007
4	Study on microbial diversity of the wild Ass Sanctuary, Little Rann of Kutch, Gujarat, India.	The ICFAI University Journal of Life Sciences, (ISSN 0973-8487)	34-41	vol.III, No.1	2008
5	Qualitative Status of Groundwater of North Gujarat India.	Electronic journal of Environmental Science, (ISSN:973-9505)	51-56.	vol.2,	2009
6	Fluoride contamination in groundwater of Patan district, Gujarat, India.	International journal of Engineering studies (ISSN 0975- 6469)	p.p. 141-147	Vol.2 (2).	2010
7	<i>Evaluation of Groundwater Quality of Banaskantha District, Gujarat India.</i>	Asian journal of Microbiology Biotechnol. and Environmental Sciences. (ISSN: 0972- 3005) Impact Factor- 0.48.	421-425.	Vol. 12, (2)	2010

Department of Physical Education

1. **Name of the Department:** Physical Education

2. **Year of Establishment:**1956

3. **Names of Programmes / Courses offered**

The department of Physical Education offers:

Public Health& practical of Various Sports Events

4. **Names of Interdisciplinary courses and the departments/units involved:** Nil

5. **Annual/ semester/choice based credit system (programme wise):**

The department has been following the Annual University pattern from the year of establishment that is from 2011. Later on, the semester system as per the University guidelines was introduced under the CBCS structure from 2011 onwards.

6. **Participation of the department in the courses offered by other departments:**

Nil

7. **Courses in collaboration with other universities, industries, foreign institutions, etc.**

Nil

8. **Details of courses/programmes discontinued (if any) with reasons:**

The department has not discontinued any programme

9. **Number of teaching posts**

	Sanctioned	Filled
Professors	0	0
Associate Professors	1	1
Asst. Professors	0	0
Ad-hoc staff	0	0

10. **Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)**

Name	Qualification	Designation	Specialization	Exp/ Years	No. of Ph.D. Students guided
Dr. D. G. Chaudhary	B.A., D. Ed, M.P.Ed, Ph. D.	Associate Professor & Head of the Department for Physical Education	Basketball, Kabbadi	23	-

11. **List of senior visiting faculty:**

Nil

12. **Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:**

All the classes are handled by the permanent faculty of the department.

13. Student -Teacher Ratio (programme wise):

Sports Program:

Academic Year	Student : Teacher
2011 – 12	2000:1
2012 - 13	2000:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

There is one Ground Man.

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D./ MPhil/PG.:

Sr.	Name	Qualification
1	Dr. D.G. Chaudhary	B.A., D. Ed, M.P. Ed, P.HD

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

National level: 1 completed (U.G.C.)

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received:

1. We receive funding for departmental development under UGC
2. Details of National Sports Seminar

Sr. No.	Name	Title of Project	Funded by	Completed	Date of Starting
1	Dr. D. G. Chaudhary	Health, Yogic & Adapted Physical Education in various Disabilities	UGC	19 th Feb. 2012	18 th Feb , 2012

18. Research Centre /facility recognized by the University: Nil**19. Publications: Nil****20. Areas of consultancy and income generated: Nil****21. Faculty as members in****a) National committees b) International Committees c) Editorial Boards****➤ Dr. D.G. Chaudhary**

Details of association with any social, religious or professional organization:

Sr. No	Organization	Type of membership	Position	Date of joining
1	Special Olympics Bharat	Board Of Trustee	Vice-Chairman	21, February, 2014
2	Special Olympics International (Asia Pacific)	Train The Trainer	Regional Trainer	2003 to Till Date
3	Special Olympics Bharat-Central Zone	Zonal Sports Committee	Sports Director	2008 to Till Date

4	Special Olympics Bharat-Gujarat	Board Of Trustee	Area Director	2000 to Till Date
5	Special Olympics Bharat-Most Valuable Person	Declare by international Office-U.S.A.	Most Valuable Person	Special Olympics World Summer Game- Greece, Athens-2011
6	Sports Authority Of Gujarat	Committee member for Khel Mahakumbh	Online Game Convener	2013
7	Sports Authority Of Gujarat	Committee member for Khel Mahakumbh	Core Committee Member of Special Khel Mahakumbh	2010 to Till Date
8	Dept. of Higher Education-Gandhinagar (KCG)	SaptdharaVyayam, YogKhel – khudDhara	Convener of Gujarat State	2011-12

22. Student projects

a) Percentage of students who have done in-house projects including interdepartmental /programmes

- The department has given the responsibility of sport event projects to Students union Committee & Sports Committee. This was the in-house project under the guidance of Dr. D.G. Chaudhary, Head Physical Education Department. Nearly 25 % of the students from the institute have participated in the project.
- The purpose is to train & orient the students towards research work in Physical Education.

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/other agencies

- About 10% students of the institute worked as volunteers in District & State level Tournaments for Intellectual Disabled Children & Adults.

23. Awards/ Recognitions received by faculty and students; Travel Grant Award:

- National Award for the year 2009, from Special Olympics Bharat for Conducting Best State Championship Tournaments among all other states in the country.
- National Award for the year 2009, from SOB for the Best Organized & innovative Special Olympics Programmes.
- National Award for the year 2009, from SOB for organizing the best Districts games for Special Athletes in the Country.
- Received Award from SOB in the year 2008 for organizing State Sports Programmes rated as best in the world for special Athletes.
- Recognition from SOB for Excellency in training the teachers of “SarvaShiksha Abhiyan” and Athletes Growth

- Award of excellence 2010 for The best Innovative State (Self Sufficient) Presented to Gujarat
- Award of excellence 2010 for Overall Performance Second Position presented to Gujarat
- Award of excellence 2010 for The best organized Sports Program (Under the Scheme of central Govt. Ministry youth Affairs & Sports) presented to Gujarat.
- Award of excellence 2011-12 presented to Special Olympics Bharat- Gujarat for the Overall performance.
- Award of excellence 2011-12 presented to Special Olympics Bharat- Gujarat for organizing the innovative event Khel Mahakumbh
- Award of excellence 2011-12 presented to Special Olympics Bharat- Gujarat for the District and state Games
- Award of excellence 2011-12 presented to Special Olympics Bharat- Gujarat for the best organized Sports Program

24. List of eminent academicians and scientists/ visitors to the department

- a) Dr. M. S. Nagrajan, Asia Pacific Regional Sport Director,
- b) Dr. Amitab Mishra, Director of Disability, IGNOU, New Delhi.
- c) Mr. Vikas Sahay (IPS), Government of Gujarat, Gandhinagar.
- d) Dr. Jatin Soni, Vice Chancellor, Sports University, Gujarat.

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National :

The department hosted a two day UGC Sponsored National Seminar on Sports: “**Health, Yogic & Adapted Physical Education in various Disabilities**” during 18-19 Feb, 2013.

b) International : Nil

26. Student profile programme/course wise: NA

27. Diversity of Students:

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
B. Sc Sem I	The department caters to all the students of the College		
B. Sc. Sem IV			
B. Sc. Sem VI			
M Sc Sem II			
M Sc Sem IV			

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? NA

29. Student progression: NA

30. Details of Infrastructural facilities:

a) Library:

The department has around 15-20 CDs on various topics on biochemistry, around 10 books in CD form & more than 35 books which are available to the students in the department itself. The rest of the books are in central library that has more than 35 books on Sports.

b) Internet facilities for Staff & Students:

The department has an internet portal for faculty. The students can avail internet facility for referencing in the department itself.

c) Class rooms with ICT facility:

The department owns a portable LCD projector, laptop and desktop computer which enable the faculty and students to give power point presentations for teaching and seminars.

d) Gymkhana Hall:

1. Badminton Court
2. Table Tennis Court
3. Multi-gym
4. Chess
5. Carom

e) Ground Facilities:

1. Kabbadi Ground
2. Kho-kho Ground
3. Handball Ground
4. Volleyball Ground
5. Football Ground
6. Cricket Ground
7. Athletics
8. Basketball Ground (Under renovation)

31. Number of students receiving financial assistance from college, university, government or other agencies: Nil

32. Details on student enrichment programmes (special lectures / workshops / seminar)

with external experts:

- Successful past students are invited to share their experience about their work, research & scope of the subjects in various industries & academia.
- The department hosted a two day UGC Sponsored National Seminar on Sports: “Health, Yogic & Adapted Physical Education in various Disabilities” during 18-19 Feb, 2013.
- Popular lectures on recent developments of sports were arranged to develop interest in students.
- Nature tours & Treks were conducted for 5 days every year (after Diwali) with the help of NGO to sensitize students towards nature & environment.
- We Inspire the Sports Students through Sports Video Clips & Practical Sessions.

33. Teaching methods adopted to improve student learning:

- The use of LCD / OHP / Seminars / Nature tours and Treks / popular lectures etc. are adopted to improve student learning.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

- Sports faculty is involved in Admission Process / Youth festival for the students and society.

No.	Programme	Participation
1	District & State Level for Intellectual disable Progarm	200 Students as volunteers
2.	State level Khel Mahakumbh, organized by Government of Gujarat	65 Students as volunteers

35. SWOC analysis of the department and Future

Strength:

- Institute has separate ground for Kabbadi, Kho-Kho, Handball, Volleyball, Cricket, Football, Athletics and separate gymkhana hall with indoor facility.
- Though it is science college students are participating in almost all the events of the sports.

Weakness:

- Since it is a science college students are mostly engaged in theory and practicals classes, they have little time for practice.

Opportunities:

- M.G. Science is one of the biggest science college and nearly 2000 students are taking their education hence there is great opportunity to generate good sportsman.

Challenges:

- To motivate the students to participate maximum in the various sport events

Publications:

1. Participated in One Week training Program on Research in Life Sciences organized by Knowledge Consortium of Gujarat, Gandhinagar as Resource Person organized on 21-26 May, 2012.
2. The effects of Physical fitness Training on the Ability Tests being done for the Athletes of “Special Olympics Bharat-Gujarat” National Seminar on Physical Education, Sports Management, Exercise, Science & Yogic Science on 25th, 26th March, 2012
3. Participated at Workshop on “Technology Enhanced Learning (TEL)” organized under DBT Star College Scheme, in association with Classes Knowledge Pvt. Ltd. Partner with National Program on Technology Enhanced Learning (NPTEL), Ministry of HRD (GOL) on 22nd January, 2013.
4. The effects of Physical fitness Training on the Ability Tests being done for the Athletes of “Special Olympics Bharat-Gujarat” U.G.C. Sponsored National Seminar organized by the department of Physical Education, Ahmedabad on 6th -7th, March, 2011
5. Participated at International Conference on theme of “Higher education: prospects of Gujarat” Organized by Knowledge Consortium of Gujarat, Department of Education, Govt. of Gujarat & Pandit Deendayal Petroleum University, Gandhinagar November 25th & 26th, 2010
6. Title: “A comparative study of emotional quotient, Achievements and Motivation of Men and Women Players of the Universities of Gujarat”. In III International Congress on “Sports Medicine, Exercise Science, Physical Education & Yogic Science” held from February 12-15, 2008 Venue: Lakshmibai National Institute of Physical Education, Gwalior, M.P. India. Participated in II International Congress on Physical Education, Sports Medicine & Exercise Science from October 5-8, 2003 at Longuinhos Beach Resort, Colva Beach, Madgaon, Goa, India.
7. Participated in State Level Workshop on Modern trends in Physical Education & Sport’s held on 31st January & 1st February 2008 at Ambaji as Resource Person organized Gujarat Universities & Colleges Physical Education teachers Association
8. Participate in National Level Seminar held at Charutar Vidya Mandal’s S.S. Patel College of Physical Education, Vallabh Vidyanagar, Anand, Gujarat on September 23-24, 2006 as Delegate.

9. “Yog Ke Dwara Swasthya” In the conference on “Relevance Of Yoga In Twenty First Century” held at Gujarat Vidyapith, Ahmedabad, Gujarat on 16th & 17th of March, 2007 organized by Department of Yoga, Gujarat Vidyapith, Ahmedabad.
10. Sports Management In 1st State Level Seminar on Physical Education, Sports & Yogic Exercise, March- 7th & 8th, 2009 at Smt. A. P. Patel Arts & Late Shree N. P. Patel Comm. College, Ahmedabad



Social Work for Intellectual Disabled Children with Principal of Dr. B. K. Jain, M.G. Science Institute



Welcome the Sports Minister with the Intellectual Disabled Athletes at M.G. Science Institute

Department of Physics

1. **Name of the department:** Physics
2. **Year of Establishment:** 1948
3. **Names of Programmes / Courses offered**
 - a. B Sc (Physics)
 - b. B Sc (Electronics)
 - c. Diploma in Embedded System

4. Names of Interdisciplinary courses and the departments/units involved:

The department conducts academic classes of IGNOU course - B. Sc. (Physics).

The department has been involved in teaching of “Physics Practicals of Building Science and Technology” at CEPT University for last three years.

5. Annual/ semester/choice based credit system (programme wise):

The department has been following the University pattern and Currently all the students are following the semester system as the University introduced the CBCS structure from 2011 onwards.

6. Participation of the department in the courses offered by other departments:

A few staff members are teaching the Physics part in vocational course of Bio-technology. They are also visiting faculty in post graduate department of other colleges and University department.

7. Courses in collaboration with other universities, industries, foreign institutions, etc.

We are offering IGNOU course in B. Sc. (Physics) under the Convergence scheme.

8. Details of courses/programmes discontinued (if any) with reasons: Nil

9. Number of Teaching posts:

	Sanctioned	Filled
Professors	0	0
Associate Professors	8	8
Asst. Professors	5	1
Adhyapak Sahayaks	1	1

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.)

Name	Qualification	Designation	Specialization	Exp/ Years	No. of Ph. D. Students Guided
Prof. Udayan V Shah	M Sc.	Assoc. Prof. & Head	Physics-Electronics	27	-

Dr. Sanjay B Madan	M Sc, Ph D	Assoc. Prof.	Physics-Electronics	26	-
Prof. Yashomala U Shah	M Sc	Assoc. Prof.	Physics-Electronics	26	-
Prof. Hiren S. Jani	M Sc, M. Phil	Assoc. Prof.	Physics-Electronics	24	-
Dr. Parimal H Trivedi	M.Sc, Ph.D.	Assoc. Prof. and Ex-Vice Chancellor of Gujarat University 2005-2012	Physics-Electronics	26	-
Prof. Sanjay Zala	M Sc, M.Phil	Asst. Prof.	Physics-Electronics	15	-
Dr. Chirag V Pandya	M Sc, M.Phil, Ph. D.	Assoc. Prof.	Theoretical physics	23	-
Prof. Shilpa C Upadhyay	M Sc, M. Phil	Asst. Prof.	Physics-Electronics	21	-
Prof. Hiren H Rathod	M Sc.	Assoc. Prof.	Physics-Electronics	21	-
Dr Nital Panchal	M Sc, Ph D	Adhyapak Sahayak	Physics-Electronics	03	-

11. List of senior visiting faculty: Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: 30-35%

13. Student -Teacher Ratio (programme wise):

The current student teacher ratio is FY (10:1); SY (32:1); TY (6:1).

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

There are four Lab. Assistants, four laboratory peons, one storekeeper, one adhoc lab assistant.

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil/PG.:

Currently all the three faculty members with doctorate are engaged in Post Doctorate research. All are recognized Ph.D. guides.

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

Two faculty members have submitted their minor research projects as per UGC guide lines.

17. Departmental projects funded by DST, DST-FIST; UGC, DBT, ICSSR, etc. and total

grants received:

- The department has received nearly Rs.33,00,000/- for establishing Instrument Maintenance Facility (IMF) in the college from year 2007-2012. Prof. U. V. Shah is the coordinator for the project.
- The department has received grant of Rs. 10,00,000/- in 2010 for starting career oriented course in Embedded System from UGC.
- The department has run self finance short term/crash courses in computer language “C” and Microcontroller and its applications under the roof of “M G Center for Courses in Applied Sciences” and generated almost a profit of Rs. 1,50,000/-.
- The faculty of Physics Department Dr. C. V. Pandya has received Rs.70,000/- for a minor project from UGC in the year 2007, which has been completed.
- The faculty of Physics Department Dr. C. V. Pandya has received Rs.1,20,000/- for minor project from UGC in the year 2010, which has been completed.

18. Research Centre /facility recognized by the University: Nil**19. Publication:**

List is given at the end of the document

20. Areas of consultancy and income generated:

The department had run self finance courses and generated around Rs. 1,50,000/- as profit.

21. Faculty as members in**a) National committees b) International Committees c) Editorial Boards**

- Prof. U. V. Shah was a member of the Board of Studies(Physics and Electronics) (2008-2012) and have contributed in syllabus preparation/modifications for Gujarat University. Dr. S. B. Madan is an active member of Board of Studies of Electronics and contributing in preparing syllabus for Gujarat University.
- Dr. Parimal H Trivedi was appointed as a Pro vice chancellor of Gujarat University in 2005 and was appointed as vice chancellor of Gujarat University from 2006-2012. During his tenure, he has implemented revolutionary CBCS system in general stream successfully. He has undertaken many projects in construction, academics and administration of the Gujarat University.
He was the vice chancellor who introduced Internet and ICT in education of University.
- Dr. C. V. Pandya represents the editorial board of advances in computational research.
- Dr. C. V. Pandya was invited as a subject expert in interviews conducted by Forensic Science University, Gandhinagar.

- Prof. H. H. Rathod is an active member of Board of Studies of Physics and is contributing to prepare syllabus of Physics for Gujarat University.

22. Student projects

a) Percentage of students who have done in-house projects including inter-departmental/programme:

- Five UG students have competed in poster competition on the excitement and current research scenario in Physics organized in P D Patel Institute of Applied Sciences, Charotar University Changa on 27th January 2013.
- Four Students of UG attended congregation of young scientific minds for innovative poster presentation (Nuclear energy, Big Bang, Nuclear Particle, Kepler Telescope) on 2nd February 2014 sponsored by GUJCOST and organized by Charotar University of Science and Technology, Changa.
- A workshop on “PLC Card and Scada” was organized by the department for the students in collaboration with Institute of Science & Technology for Advanced Studies & Research, Vallabh Vidyanagar on 11-12 February 2014.
- The department has been running Career Oriented Courses in Embedded System, C Language and crash courses in Micro Controllers for the students since 2011.

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/other agencies:

Nil

23. Awards/ Recognitions received by faculty and students;

- SwetaTiwari stood first in T Y B.Sc in the subject of Physics and received gold medals in the year 2007.
- Gnyansagar Patel stood first in the subject of Physics in the institute in the year 2008 and was ranked in the University.
- RameshVarma stood first in Gujarat University in final B. Sc in the subject of Physics and received gold medal.

24. List of eminent academicians and scientists/ visitors to the department

List of eminent academicians and scientists/ visitors to the department are Prof. J. N. Desai and Prof. Abhijit Sen, Physical Research Laboratory.

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National

A national workshop on Laboratory Astrophysics: Applications to cosmic Dust was

sponsored by IUCAA and GUJCOST and arranged in Physics department on 12-13 Nov, 2010. Dr. Ranjan Gupta from IUCCA, Prof. Abhijit Sen from IPR and Prof. J. N. Desai, retired professor from PRL were the resource persons in the workshop

b) International:

Nil

c) State Level :

- With the help of BISAG, Gujarat Govt and DBT, a work shop on “E-Content Development and Management using Freeware” was organized in electronics Lab of Physics Dept. The main resource person was Dr. M. N. Jivani, Electronics Dept, Saurashtra University, Rajkot on 11-12 Feb, 2012.
- A crash course in “Disaster Management, Medical Relief Work & Fight for Public Health Rights” was organized in the department by Dr. Abhijit Vaidya of Arogya Sena, a part of NGO S. M. Joshi Memorial Medical Association Charitable Trust, Pune) on 5 December, 2010.
- A one day seminar for the students and staff was arranged by Physics Department on “Explore Your Energy” on 30 August 2010 and the resource person was Mr. Maulin Pandya, it was sponsored by the department itself.
- Arranged a one day work shop on 22nd Jan 2013 on “Technology Enhanced Learning” sponsored by DBT and in association with ClassE Knowledge Pvt. Ltd.

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			M	F	
BSc Sem I	4503	435	292	143	
BSc Sem III	435	184	124	60	
BSc Sem V	184	44	30	14	

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
B. Sc Sem II	81.64	18.35	-
B. Sc Sem IV	87.29	12.71	-
B.Sc. Sem VI	86.77	13.23	-
M Sc Sem II	-	-	-
M Sc Sem IV	-	-	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

No data available

29. Student progression

Student progression	Against % enrolled
UGto PG	60%
PG to M.Phil.	--
PG to Ph.D.	6/60 i.e. 10 %
Ph.D. to Post-Doctoral	--
Employed Campus selection Other than campus recruitment	3-4/65
Entrepreneurship/Self-employment	3-4/100

30. Details of Infrastructural facilities

a) Library:

The departmental library has 200 books, while the central library has 2500 books.

b) Internet facilities for Staff & Students:

The department is well equipped with two computer laboratories with projector, networking and print facility with capacity of 20 students. The department has an internet portal for faculty and Wi –Fi accessibility.

c) Class rooms with ICT facility:

The department owns two LCD projector, which enables the Faculty and students to give power point presentations for seminars and teaching respectively..

d) Laboratories:

Four labs: Total intake capacity is 250.

31. Number of students receiving financial assistance from college, university, government or other agencies:

No data available.

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts:

- Study tour /Industrial visit
- The students of Physics department normally visits observatory of PRL located at Udaipur and Mount Abu.
- Final year B.Sc. seminars/assignments, regularly undertaken by students of all classes.
- Quiz/Poster competition Participation details in point no. 20.

33. Teaching methods adopted to improve student learning:

In addition to regular classroom blackboard teaching method, the use of LCD/OHP/seminars/ study tours/ industrial trainings/competitions/ popular lectures/ assignments/question paper solving etc. are used to improve student learning.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

-

35. SWOC analysis of the department and Future

Strength:

The department has B.Sc. Physics and B. Sc Electronics and both streams run very systematically. The department has four staff members with Ph. D. degree and three staff members with M. Phil. degree and their continuous academic endeavours make teaching effective. This is reflected by good results obtained at the final university examination. The department enjoys very good infrastructural facility.

Weakness:

- Faculty crunch.

Opportunities:

There are more opportunities to connect with the institutes of repute like PRL and ISRO.

Challenges

It is difficult to bring in the latest development in the world of Physics in the studies of pure science course like Physics.

19. Publications:

Publications in Journals

Dr. C. V. Pandya

1. Differential scattering cross sections for electron scattering by Ytterbium atom. FizikaA, 18 , 133-140 , 2009. – Zagreb.
2. Differential scattering cross sections for elastic electron scattering by Calcium atom. Chinese Journal of Physics 48, 451-459, 2010 - China.
3. Total (elastic + inelastic) cross sections for electron scattering from N₂O, CF₄, NO and F₂ molecules. Fizika A, 19, 47- 54, 2010 – Zagreb.
4. Differential scattering cross sections for elastic electron – magnesium scattering. Romanian Journal of Physics, 56 , 172-176, 2011 – Romania.
5. Elastic electron scattering by lead atom in the energy range from 10 to 100 eV. Journal of Atomic and Molecular Sciences, 3, 279-284, 2012. - China.

6. Electron-impact ionization of SiCl, SiCl₂ and SiCl₄ molecules Journal of Atomic and Molecular Sciences, 4, 41-48, 2013. - China.
7. Invited as a reviewer in Canadian journal of physics.

Dr. Nital R Panchal

1. Cobalt ferrite nano particles by microemulsion route Nanotechnology and Nanoscience 17-181 (1) 2010
2. Synthesis and characterization of Barium Hexaferrite particles by sol-gel auto combustion method Journal of Biomedical and Bioengineering 01-02 1 2010
3. Structural studies of co-spinel ferrite synthesized by auto combustion method Journal of Analytical Techniques 01-02 1 (1) 2010
4. Structural and dielectric properties of hexaferrite-spinel composites prepared using sol-gel auto combustion technique Invertis Journal of Science & Technology 71-75 5 (2)2012
5. The effect of Ag¹⁶⁺ ion irradiation on the structural properties of Ba-W hexaferrite prepared using a co-precipitation route Radiation Effects and Defects in Solids 653-656 166 (8-9) 2011
6. Physical properties of strontium hexaferrite Nano magnetic particles synthesized by a sol-gel auto-combustion process in presence of non ionic surfactant Nanoscience and anotechnology Letters 623-627 4 (6) 2012
7. Effect of heat treatment on micro-structure and magnetic properties of Strontium hexaferrite nano particles prepared in presence of non-ionic Surfactant Solid State Phenomena Trans Tech Publications, Switzerland 193-205 202 2013
8. Structural, magnetic & dielectric properties of Sr-M Hexaferrite nanoparticles prepared using a reverse micelles route Journal of International Academy of Physical Sciences 189-196 16(2) 2012
9. Effect of swift heavy ion irradiation on structural and magnetic properties of Strontium hexaferrites Defect and Diffusion Forum Trans Tech Publications, Switzerland 155-168 341 2013
10. Enhancement of magnetic properties in Co-Sr Ferrite nano composites prepared by an SHS route Solid State Phenomena Trans Tech Publications, Switzerland 164-168 209 2014
11. Structural and Dielectric studies of Cu substituted Barium hexaferrite prepared by Sol-gel auto combustion technique Solid State Phenomena Trans Tech Publications, Switzerland 102-106 209 2014

Participation

Prof. U. V. Shah

1. Seminar on “Disaster Management” Aarogya Sena, Pune National 05-12-2010
2. Workshop on “Free wares and moodle” BISAG, Govt. of Gujarat State 11/12 Feb
3. Workshop on “Technology Enhanced Learning (TEL)” M. G. Science Institute college 22nd January, 2013
4. Workshop on “Training and Capacity building programme in Physics ” 1 week held at AMA Ahmedabad from 31October to 5 November 2011.

Prof. Y. U. Shah

1. Seminar on “Disaster Management” Aarogya Sena, Pune National 05-12-2010
2. Workshop on “Free wares and moodle” BISAG, Govt. of Gujarat State 11/12 Feb 2012
3. Workshop on “Technology Enhanced Learning (TEL)” M. G. Science Institute college 22nd January, 2013
4. Workshop on “Assessment of Health status based on body composition” M. G. Science Institute college 22nd February, 2013

Prof. H. S. Jani

1. XV National Seminar on Crystal Growth, 23-25 February 2011, PSNCET, Tirunelveli NATIONAL 23-25/12/2011 Growth, structural, Thermal and FT-IR Spectroscopy Studies of Pure and L-arginine doped Potassium Pentaborate Crystals
2. CURRENT TRENDS IN RESEARCH AND APPLICATIONS OF PHYSICAL SCIENCES IN GUJARAT CTRAPSG-12 NATIONAL 29/12/12 Study of L-arginine Doped Potassium Pentaborate Crystals
3. -Workshop on “Free wares and moodle” BISAG, Govt. of Gujarat State 11/12 Feb 2012

Dr. C. V. Pandya

1. “Total (elastic plus inelastic) cross sections for electron scattering from Gold and Silver at 10-5000 eV.” XVIth National Conference on Atomic and Molecular Physics. Tata Institute of Fundamental Research , Mumbai . January 8-11 ,2007.
2. (i) “Cross Section for electron scattering from Ytterbium.” (ii) “Cross Section for electron scattering from Magnesium.” Topical Conference on atomic and molecular physics .Department of Physics –S.P. University,VallabhVidya Nagar – January 3-5, 2008.
3. “Electron-impact ionization of molecules.” DAE – BRNS symposium on atomic molecular and optical physics. The Inter-University Accelerator Centre New Delhi – February 10 - 13, 2009.
4. “Electron impact ionization cross sections for some diatomic and triatomic molecules.”

- 3rd International conference on Current developments in atomic, molecular, optical and Nano physics. Delhi University, Delhi – December 14-16 , 2011.
5. “Electron atom/molecule collision study.” Joint workshop on atomic and molecular data for collision International centre of theoretical physics, Trieste, Italy 20-30 April 2009.
 6. (i) “Total ionization Cross sections for Si₂, SiC, SiC₂ and Si₂C molecules.” (ii) “Total ionization Cross Section for fluoro acetylene molecule.” XXVIII International Conference On Photonic, Electronic and Atomic Collisions. 24-30 July, 2013. Lanzhou-China.
 7. Convener in a national workshop on “Laboratory Astrophysics: Applications to cosmic Dust” arranged in Physics department M.G. Science Institute on 12-13 November 2010.

Prof. H.H. Rathod

1. Indian Astronomy Ancient & Modern-2009 Indian Planetary Society(IPS) June27-30,2009
2. Work shop on Atmospheric science And climate change Indian centre for climate and societal impacts Research(ICCSIR) January23-24,2010
3. Current trends in physics Dep of PHYSICS Gujarat University and PRL March 14, 2010
4. Laboratory Astrophysics Application to cosmic dust Inter university centre for Astronomy And Astrophysics-pune and Gujarat Council on science and technology November 12-13,2010
5. Cryptography@Computer and safety UGC State January25,2011
6. Intellectual Property Rights Awareness-2011(WIPRA-2011) IPR Cell June 16,2011
7. E-content development and management using freeware DBT(NEW DELHI)
8. STAR COLLEGE SCHEME February 11-12,2012
9. Health,Yogic & Adapted Physical Education in various disabilities UGC February 18-19,2013

Dr. Nital R. Panchal

1. National Workshop on Nanotechnology & Nanoscience of Magnetic particles for Biomedical Applications (NNMPBA-07) Department of Physics, Bhavnagar University, Bhavnagar National 29th Jan. to 1st Feb., 2007 The synthesis and characterization of Manganese-Zinc ferrite nanoparticles prepared by a micro emulsion route
2. International Workshop on Nanostructured High Temperature High Performance Materials (WNHPM-07) Department of Materials Science, S. P. University, VallabhVidyanagar, Gujarat, India International 10 September, 2007 Low temperature

synthesis of Spinel ferrite nanoparticles using precipitation in Microemulsion

3. International Conference on Advanced Materials and Applications – 2007 (ICAMA-2007) Department of Physics, Shivaji University, Kolhapur International 15-17 November, 2007 Low temperature synthesis, structural and dielectric properties of Nano-sized $Mn_{0.5}Zn_{0.5}Fe_2O_4$ spinel ferrite powder derived by a micro emulsion route
4. XXII Gujarat Science Congress 2008 Bhavnagar University, Bhavnagar and Gujarat Science Academy State 9 March, 2008 Synthesis, characterization and structural properties of nano - magno ferrites in presence of cationic surfactant CTAB
5. National Seminar on Emerging Trends in Forensic Science Forensic Science, Gujarat University, Ahmedabad National 27-28 April, 2008 Synthesis, characterization and magnetic properties of ferrites for forensic laboratory instruments
6. National Seminar on Advanced Materials-Research and development National Physical Laboratory, New Delhi National 4-5 September, 2008 Synthesis and characterization of BaHexaferrite Nanoparticles prepared by a chemical co-precipitation technique using a surfactant
7. International Conference on Nanomaterials and Devices: Processing and Applications (NADPA 2008) Center of Nanotechnology, Indian Institute of Technology, Roorkee International 11-13 December, 2008 Structural and Magnetic Properties of Zinc substituted Strontium Hexaferrite Nano particles prepared by a co-precipitation technique
8. SCIENCE EXCELLENCE-2009 Department of Botany, Gujarat University, Ahmedabad State 10 January, 2009 Effect of temperature condition on the structural & magnetic properties of Strontium hexaferrite particles
9. Seminar on Advances in Condensed Matter Physics (AICMP-09) Department of Physics, The M.S. University of Baroda, Vadodara, Gujarat National 27 February, 2009 Effect of heat treatment on the structural and magnetic properties of Sr-M hexaferrite particles prepared by coprecipitation technique
10. International Workshop on Nanotechnology and Advanced Functional Materials (NTAFM-09) National Chemical Laboratory, Pune, India International 9-11 July, 2009 Physical properties of strontium hexaferritenano particles synthesized by a sol-gel auto-combustion process with addition of non ionic surfactant
11. National Symposium on Vacuum Technology and its Applications to Electronic Devices and Systems (IVSNS 2009) Indian Vacuum Society, CEERI, Pilani National 11-13

- November, 2009 Characterization of Sr-M hexaferrite powder synthesized by co-precipitation and Microemulsion route
12. National Seminar on Confluence of Supramolecular Chemistry and Nanoscience Department of Chemistry, Gujarat University, Ahmedabad National 22-23 January, 2010 Effect of surfactant in the formation of Strontium hexaferrite nano particles prepared by an SHS route
 13. National Conference on Nano Structured Materials & Their Applications (NCNSMA-2010) Shri Madhavrao Patil Mahavidhyalaya, Murum National 12-13 March, 2010 Cobalt Ferrite Nano Particles By Microemulsion Route
 14. National Conference on Nano Structured Materials & Their Applications (NCNSMA-2010) Shri Madhavrao Patil Mahavidhyalaya, Murum National 12-13 March, 2010 Synthesis and Characterization of Barium Hexaferrite particles by Sol-Gel Auto combustion method
 15. National Conference on Nano Structured Materials & Their Applications (NCNSMA-2010) Shri Madhavrao Patil Mahavidhyalaya, Murum National 12-13 March, 2010 Structural studies of Co-Spinel ferrite synthesized by an auto combustion method
 16. XXIV Gujarat Science Congress 2010 Gujarat University, Ahmedabad and Gujarat Science Academy State 21 March, 2010 Characterization of Sr-M Hexaferrite Nano Particles prepared by SHS route
 17. XXIV Gujarat Science Congress 2010 Gujarat University, Ahmedabad and GSA State 21 March, 2010 Synthesis and characterization of BaFe₁₂O₁₉ Hexaferrite Particles by sol-gel auto-combustion method
 18. 48th Accelerator Users' Workshop Inter-University Accelerator Centre, New Delhi National 6-7 July, 2010 Effect of swift Heavy Ion Irradiation on hexaferrite
 19. Conference on Swift Heavy Ions in Materials Engineering and Characterization (SHIMEC 2010) Inter-University Accelerator Centre, New Delhi. International 6-9 October, 2010 Effect of Ag¹⁶⁺ ions irradiation on structural properties of Ba-W Hexaferrite prepared by a co-precipitation route
 20. XII IEEE International Vacuum Electronics Conference IVEC – 2011 IEEE Electron Devices Society – Vacuum Electronics Committee, Bangalore, India Inter-National 21-24 February, 2011 Heat Treatment Effects on Dielectric Properties of SrFe₁₂O₁₉ Hexaferrite prepared by an SHS route
 21. XXV Gujarat Science Congress 2011 Gujarat Council of Science City and Gujarat

- Science Academy State 26-27 February, 2011 Low temperature synthesis of Sr-M hexaferritenano particles by a Micro emulsion route
- 22 XXV Gujarat Science Congress 2011 Gujarat Council of Science City and Gujarat Science Academy State 26-27 February, 2011 Study on the formation of Barium hexaferrite by a auto-combustion method with Al substitution
- 23 XXV Gujarat Science Congress 2011 Gujarat Council of Science City and Gujarat Science Academy State 26-27 February, 2011 Study of Nanocrystallite Co-ferrite powders by sol-gel auto-combustion method
- 24 XXV Gujarat Science Congress 2011 Gujarat Council of Science City and Gujarat Science Academy State 26-27 February, 2011 The role of surfactants for forming the W-type hexaferritesnano structure materials using a solvent free method
- 25 National Conference on PHYSICS FOR TOMORROW St. Xavier's college, Ahmedabad, India National 3-4 March, 2011 Characterization of Sr-M hexaferritenano particles prepared by SHS route
- 26 14th International Conference on Physical Sciences Interface with Humanity (CONIAPS-XIV) SardarVallabhbhai National Institute of Technology, Surat International 22-24 December, 2011 Structural, Magnetic and Dielectric properties of Sr-M hexaferritenano particles prepared using a reverse micelles route
- 27 14th International Conference on Physical Sciences Interface with Humanity (CONIAPS-XIV) Sardar Vallabhbhai National Institute of Technology, Surat International 22-24 December, 2011 To study the physical properties of Cobalt ferrite nano particles synthesized by sol-gel auto combustion method
- 28 National Symposium on Advances in Materials Science and Technology (AMST-2012) Department of Physics, School of Sciences, Gujarat University, Ahmedabad National 3-4 February, 2012 Enhancement of magnetic properties in Co-Sr Ferrite Nano Composites prepared by an SHS route
- 29 National Symposium on Advances in Materials Science and Technology (AMST-2012) Department of Physics, School of Sciences, Gujarat University, Ahmedabad National 3-4 February, 2012 Structural and Dielectric studies of Cu substituted Barium hexaferrite prepared by Sol-gel auto combustion technique
- 30 International Conference on Advances in Tribology and Engineering systems (ICATES-2013 L. D. Engineering, Gujarat Technological University Inter-national 15-17 October, 2013 Influence of surfactant in Hexa ferrites as Wear Resistance.

- 31 National Conference on Condensed Matter and Materials Physics (CMMP06)
Department of Physics, Faculty of Science, The Maharaja Sayajirao University of Baroda, Vadodara National 19-21 January, 2006
- 32 National Workshop on Advanced techniques for Material characterization (ATMC-06)
Physics Department, Faculty of Science, The M. S. University of Baroda, Vadodara National 20-22 February, 2006
- 33 One Day Seminar on Nanotechnology, Human Resource Development Perspective in Gujarat. Sarva VidyalayaMandal, LDRP Institute of Technology State 11 February, 2006
- 34 XX-Gujarat Science Congress 2006 Gujarat University, Ahmedabad State 26 March, 2006
- 35 One day seminar on Microwave and its Applications Department of Physics, Gujarat University, Ahmedabad National 21 January, 2007
- 36 One day National Seminar on Recent Trends in Materials Science Department of Physics, Saurashtra University, Rajkot National 25 March, 2007
- 37 XXI Gujarat Science Congress Hemchandracharya North Gujarat University.State 11 March, 2007
- 38 One day seminar on Trends in Nano Science and Nano Technology (TNST-2007)
General Department, Institute of Diploma Studies, Nirma University of Science and Technology, Ahmedabad State 18 August, 2007
- 39 International Conference on Condensed Matter Physics & 5th Annual Convention of Rajasthan Physics Association (ICCMP – 2007) University of Rajasthan, Jaipur Inter-national 25-28 November, 2007
- 40 One Day Seminar “WIS”: Careers in Science St. Xavier’s College, Ahmedabad State 13 September, 2008
- 41 Indo-Russian Workshop on Self-propagating High Temperature Synthesis (SHS)
Institute of Science, Bangalore, India Inter-national 27-29 November, 2008
- 42 National Workshop on X-Ray Diffraction Techniques and Applications NWXRD – 2010
Department of Physics, Saurashtra University, Rajkot, Gujarat National 17-19 March, 2010
- 43 DST Sponsored One Day Awareness Workshop on WOMEN IN SCIENCE CEPT University, Ahmedabad State 16 July, 2010
- 44 International Women’s Day Women’s Development Cell, Gujarat University,

Ahmedabad, Gujarat State 8 March, 2010

- 45 One Day Seminar on Current Trends in Physics Department of Physics, University School of Sciences, Gujarat University Ahmedabad State 14 March, 2010
- 46 Science Forum Science city State 16th October, 2012
- 47 Workshop on “Technology Enhanced Learning (TEL)” M. G. Science Institute, 22nd January, 2013
- 48 Workshop on “Assessment of Health status based on body composition” M.G. Science Institute, 22nd February, 2013
- 49 DWIH Symposium on “Materials Challenges for Future and Renewable Energy” Gujarat Science City, Ahmedabad Inter-national 16th November, 2013
- 50 DAE-BRNS 2nd National Workshop on Materials Chemistry (Catalytic Materials) NWMC (CAT-MAT) Chemistry Division, Bhabha Atomic Research Centre, Mumbai National 22-23 November, 2013.

Department of Statistics

1. **Name of the department:** Statistics
2. **Year of Establishment:** 1958
3. **Names of Programmes / Courses offered**

a. B. Sc. Statistics

4. **Names of Interdisciplinary courses and the departments/units involved:**

As such there is no such inter disciplinary course, but as being an applied subject interdisciplinary research work is carried out with botany, biochemistry, chemistry and microbiology departments

5. **Annual/ semester/choice based credit system (programme wise):**

The department has been following the University pattern from the year of establishment. The first year to the third year students are into the semester system as the University introduced the CBCS structure from 2011 onwards.

6. **Participation of the department in the courses offered by other departments:**

Nil

7. **Courses in collaboration with other universities, industries, foreign institutions, etc.**

We do not have any such collaboration.

8. **Details of courses/programmes discontinued (if any) with reasons:**

No

9. **Number of Teaching posts:**

	Sanctioned	Filled
Professors	0	0
Associate Professors	3	3
Asst. Professors	1	0
Adhyapak Sahayaks	0	0

10. **Faculty profile with name, qualification, designation, specialization,**

(D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialization	Exp/ Years	No. of Ph. D. students guided
Prof. B. R. Hathi	M. Sc.	Assoc. Prof & Head	Statistics	35	-
Dr. M. B. Thaker	M. Sc., Ph. D.	Assoc. Prof	Statistics	21	-
Dr. R. D. Chaudhari	M. Sc., Ph. D.	Assoc. Prof	Statistics	20	-

11. List of senior visiting faculty: Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: NA

13. Student -Teacher Ratio (programme wise):

The current teacher student ration is FY (25:1); SY (20:1); TY (8:1)

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

There is no academic support staff neither sanctioned nor filled

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil/PG.:

Currently two faculty members with doctorate and one with PG

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

Name of the Faculty	Project Duration	Title of the Project	Funding Agency	Amount
Dr. M. B. thaker	Co-Investigator	Minor research projecton “Comparing diseased and normal human breast cancer tissue flouorescence spectra in visible regima through Statistical tools Viz ANOVA and Tucky- Cramer post hoc test”	UGC(C. U. Shah Science college)	80,000/-

17. Departmental projects funded by DST, DST-FIST; UGC, DBT, ICSSR, etc. and total grants received:

The department has received the grants under Star college of scheme DBT. A computer lab with 20 computers is established with the licensed software of SPSS. The amount received is Rs; 700000 as a one time seed money for non-recurring expenses and Rs. 200000 per year as recurring expenses from the year 2009.

18. Research Centre /facility recognized by the University: Not yet.

19. Publication: List is given at the end of the document

20. Areas of consultancy and income generated: Nil

21. Faculty as members in

a) National committees b) International Committees c) Editorial Boards

- Prof. B. R. Hathi is a member of Board of studies at Gujarat University, Ahmedabad.

22. Student projects

a) Percentage of students who have done in-house projects including inter-departmental/programme:

More than 50 percent students of T.Y.B. SC. have undergone hands-on training in SPSS course.

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/other agencies:

Nil

23. Awards/ Recognitions received by faculty and students :Nil

24. List of eminent academicians and scientists/ visitors to the department

Name of Faculty Visited	Faculty detail	Programs/Topic	Beneficiary
National Seminar on “ Impact of Statistics on Science and Society” 25-26, Feb. 2010			
Prof. Subrata Lahiri	Professor, International Institute of population Studies, Bombay	National Seminar Role of Statistics in Demographic research	Participants
Prof. P. A. Patel	Professor, Department of Statistics, Sardar Patel University, VV Nagar	Identifying Pattern in Time Series Data	Participants
Mr. Ramkrishna Poojari	Statistician, SPSS, South Asia, Bangalore.	<i>SPSS Predictive Analytics: A Technology View to Tomorrow</i>	Participants
Dr. M. N. Patel	Professor, Statistics Department, Gujarat University, Ahmedabad	Statistical Quality Control and Its Applications.	Participants
Dr. Subharani	Biostatistician, Synchron Research Services Pvt. Ltd.	Statistics and drug development	Participants
Dr. M. S. Subharekha	Sr. manager, Biomedical data sciences India, GSK Pharmaceuticals Ltd.	Role of Statisticians and SAS Programmers within the Pharmaceutical Industry	Students
Krishna Nanavati	Sr. SAS Accredited trainer, epoch research institute (guj.) Pvt Ltd	Statistics As Career.	Students
Mr. Sudeesh	Sr. SAS Trainer, SAS India Pvt Ltd.	Business Analytics, Better Answers, Faster	Participants
Dr. Ravi Gor	Dean, St. Kabir Institute of Professional Studies, A'bad	Introduction to Monte Carlo Simulation	Participants
Prof. Ashok Shanubhogue	Prof. & Head, Dept. of Statistics, S. P. University, V.V.Nagar	On the interpretation and uses of sensitivity, specificity and predictivity	Participants
Dr. Bhavin Shah	B.K. Majumdar College of Business Administration, Ahmedabad	Search Engine Optimisation	Participants

		(SEO)Techniques-Strategies.	
Prof. A. P. Gore	Professor, Department of Statistics, Univeraity of Pune, Pune.	Why Statistics?	Participants
Prof.Sarayu Paranjape	Professor, Department of Statistics, Univeraity of Pune, Pune.	Principle Component Analysis in Practice.	Participants
Scope of Statistics/statistical programming in today's industrial world. 1st Feb-2011			
Dr. ShubhaRani 1/2/2011	Technical Director, Head- Bio Metrics & Data Management at Synchron Research Services Pvt. Ltd.'	Choice of Career in Statistic sis an boom not a curse.	Students
Dr. K. V. palanichamy	Director- Biostatistics and Statistical Programming, Kendal Research.	Awareness& Roles of Statistics in Clinical Research, Banking/Finance, Retails Etc.	Students
Jagannatha P S	Senior Manager Biostatistics and Programming GlaxoSmithKline Pharmaceuticals Ltd., Biomedical Data Sciences India,	Optimum Utilisation of tools and Techniques by Statistician.	Participants
Dr. Suresh Mashruwala	Cricket Commentrator,	Enhencement of Opportunities by Learning Effective Communication	Students
Dr. Bhavin Shah	Consultant	KPO/BPO	Participants
New era of Statistics using SAS, 18th Dec. 2010			
Dr. K. V. Palanichamy	Director, Biostatistics department from Kendle Clinical research center	Scope for the statistician in the clinical research Industries and also discussed their requirement .	Students
Dr. kamlesh Patel	V. P. Statistics Department Lamda therapeutics research		Students
Ms. Priyanka Arora	Epoch research center	Communication skill and how to face interview.	Students
Mr. Amol Nemade	Epoch Research Center	Importance of SAS	Students

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National

- The department organized a UCG Sponsored national Seminar on “**Impact of Statistics on Science and society**” at M. G. Science institute during 25th – 26th Feb. 2010.
- Organized one day workshop for faculties on “**Exploring Statistics Using Microsoft Excel**” under DBT Star College Scheme on 22nd November 2011.
- The department organized 20 sessions Training program for T.Y. B.Sc. (Statistics) Students on “PASW Statistics 18” under DBT Star College Scheme during 17th to 27th Jan 2012 (16 Students).

- The department organized 20 sessions Training program for T.Y. B.Sc. (Statistics) Students on “PASW Statistics 18” under DBT Star College Scheme during 6th to 16th Feb 2012 (22 Students in two batches).
- The department organized 20 sessions Training program “Introduction to PASW Statistics 18” under DBT Star College Scheme during 5th to 13th April 2012.
- The department organized 20 sessions Training program “Introduction to PASW Statistics 18” under DBT Star College Scheme during 4th to 14th June 2012.
- The department organized 20 sessions Training program “Introduction to PASW Statistics 18” under DBT Star College Scheme during 6th to 8th March 2013.
- The department organized 20 sessions Training program “Introduction to PASW Statistics 18” under DBT Star College Scheme during 22th to 27th April 2013.

b) International: -

26. Student profile programme/course wise:

Name of the Course/programme	Applications received	Selected	Enrolled		Pass percentage
			M	F	
BSc Sem I	1714	76	51	25	
BSc Sem III	76	46	25	21	
BSc Sem V	46	22	13	9	

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
B. Sc Sem II	82.86	17.14	-
B. Sc Sem IV	91.12	8.88	-
B. Sc. Sem VI	100	-	-
M Sc Sem II	-	-	-
M Sc Sem IV	-	-	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? No data available

29. Student progression

Student progression	Against % enrolled
UG to PG	90%
PG to M.Phil.	
PG to Ph.D.	
Ph.D. to Post-Doctoral	
Employed Campus selection Other than campus recruitment	
Entrepreneurship/Self-employment	

30. Details of Infrastructural facilities

a) **Library:**

The departmental library has 50 books. The rest of 600 books including 3 journals are in the central library.

b) **Internet facilities for Staff & Students:**

The department has got internet facility in the computer lab, the students of Statistics department and faculty members of other departments also avail this facility.

c) **Class rooms with ICT facility:**

The department owns a fixed LCD projector in the computer Lab. This can be used for the teaching purpose.

d) **Laboratories:**

Two laboratories: (a) Computer lab: intake capacity 20 students.

(b) Manual Lab: intake capacity 70 students Total intake capacity is 150.

31. Number of students receiving financial assistance from college, university, government or other agencies: -

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts:

- Conducted seven 20 sessions workshop on “Introduction to PASW Statistics-18”
- Study tour / Industrial visit
- TY assignments
- Conducted workshops on applications of statistics for the benefit of students.

33. Teaching methods adopted to improve student learning:

In addition to regular classroom blackboard teaching method, the use of LCD/OHP/seminars/study tours/industrial trainings/ competitions/popular lectures/ assignments /question paper solving etc. are used to improve student learning.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Faculty members of Statistics department are involved in Admission process/youth festival/ or any unassigned work for the benefit of students and society.

No	Programme	Participation
1	NCC	1 student

35. SWOC analysis of the department and Future

Strength:

The department has 2 faculty members who have Ph.D. degree. The department

established a computer lab with 20 computers along with license software – PASW SPSS 18 under DBT Start College Scheme and UGC- special grants for the equipments. Department has organized seven training programs of the software PASW- SPS-18 and trained 82 students and 4 faculties. The students of M. Sc. Class from Gujarat University get guidance for their project work and data analysis from the faculty members of the institute.

Weakness:

There is dearth of one faculty member in the department

Opportunities:

If latest software made available then students would get better opportunities in their further study/research work and placement. There is an opportunity to get one COC program from UGC.

Challenges

The department has to meet challenges with the ongoing advancement in the techniques of business analytics and new software related to Statistics.

19. Publications: Books: Nil

Publications: Journals:

Dr. M. B. Thaker

1. “An empirical analysis for the determinants of bank deposits of Urban Cooperative Banks in Gujarat”, *Sankhya, Vignan New Series (NSV3)* June 2007. No. 1, 23-34.
2. “Milk growth in cows and buffeloes of Prantij using homeopathic medicines”, *Sankhya Vignan New Series (NSV3)* June 2007. No.1, 35-39.
3. “An application of operating characteristics curve in online strength monitoring of ready mixed concrete”, *New Building materials and construction world, (International Journal)*, June 2007, Vol. 12, Issue 12, 130-139.
4. “Data envelopment analysis”, *Sankhya, Vignan New Series (NSV4)* June 2008. No. 1, 15-24.
5. “Efficacy of homeopathic treatment in malaria : A study in slums of Ektanagar and Borsad Chowkdi areas of Anand”, *Sankhya, Vignan New Series (NSV4)* June 2008. No. 1, 38-46.
6. “Education, Economic Growth and Economic development of India”, *Sankhya Vignan New Series (NSV5)* June 2009. No. 1, 14-30.
7. “Petro Retail Mix Elements: A Study of Indian Market”, *Journal of International Business and Economics* Vol. 12 No. 2. 2012 34-45.

Dr. R. D. Chaudhari

1. R. D. Chaudhari and P. A. Patel (2011) "On variance estimation for the GREG estimator", *Prajna- Journal of Pure and Applied Sciences*, Vol. 19: 97-99 (2011)
2. R. D. Chaudhari and P. A. Patel (2008) "Model-based variance estimation under unequal probability sampling", *Metrika* (German), Vol. 67(2), 171-187 (2008)

Participation:**Dr. B. R. Hathi**

1. Gujarat Council of Science and Technology: Judge for the state level national science seminar-2012 on "Mathematics in India: Past, Present and Future", on 12th Sep. 2012.
2. Attended one day state level UGC sponsored workshop on "Statistical Computing : Procedures and applications" on 16th Mar 2013 organized by K.K. Shah Jarodwala Science College, Maninagar.
3. Participated in workshop on "Solving mathematical problems by software" on 15th and 16th March 2010.
4. Participated in workshop on "Teachers training program in Bioinformatics" under DBT on 21st Nov. 2009.
5. UGC sponsored National level seminar on "Recent trends in Bio-Medical Statistics." 24-25 February, 2007, organized by Department of Statistics, University School of Sciences, Gujarat University, Ahmedabad- 380 009. Gujarat.
6. Attended seminar on "Role of Statistics on socio-economic planning" organized by Director of Economics and Statistics, Gandhinagar and Dept. of Statistics Gujarat University on 29th June 2007.

Dr. M. B. Thaker

1. 43rd annual conference of The Indian Econometric Society organized by IIT Bombay, during Jan 5-7, 2007.
2. UGC sponsored National level seminar on "Recent trends in Bio-Medical Statistics." 24-25 February, 2007, organized by Department of Statistics, University School of Sciences, Gujarat University, Ahmedabad- 380 009. Gujarat.
3. XXI annual conference of Gujarat Science Congress jointly organized by Gujarat Science Academy and Hemchandracharya North Gujarat University, Patan on March 11, 2007.

4. Seminar on role of statistics on socio-economic planning jointly organized by Directorate of Economics and Statistics, Gandhinagar and Department of Statistics, Gujarat University Ahmedabad on 29th June, 2007.
5. 91st annual conference of The Indian Economic Association organized by Department of Economics, Mohanlal Sukhadia University, Udaipur (Rajasthan) during December 27-29, 2008.
6. Attended a two day stat level seminar on “Career Opportunities in Statistics” organized by PG department of Statistics of Sardar Patel University during 1st-2nd August, 2009.
7. Participated in CONFEST '10 (Construction Technology & Management Symposium +Fest) as a Delegate. Organized by M. Tech. Programme in Construction & Project Management CEPT University during 19th-20th February 2010.
8. Participated in workshop on “Solving Mathematical Problems by Software” organized by department of mathematics during 15th-16th March, 2010.
9. Participated in the National Symposium on “Evolving Paradigm to Improve Productivity from Dynamic Management and Value Addition for Plant Genetic Resources”. Organized by Department of Botany, Gujarat University during 13th to 15th October-2011.
10. Participated in the International conference on “Applied Mathematics and Statistics” organized by Department of Statistics and Mathematics, Gujarat University, Ahmedabad during December, 16-18, 2011.
11. Attended a UGC sponsored one day Stat Level Seminar on “Cryptography @ Computer & Safety” organized by Department of Mathematics, C. U. Shah Science College, Ahmedabad. on 25th January, 2011
12. Participated a “Workshop on E-Content Development and Management using freeware” organized by physics and Microbiology department, M. G. Science Institute, Ahmedabad under DBT Star college scheme during 11th & 12th February 2012.

Dr. R. D. Chaudhari

1. Dr. R. D. Chaudhari have delivered four lectures on ‘Modeling in R-Language’ under visiting scheme at P.G. Department of Statistics, Sardar Patel University, Vallabh Vidyanagar as under:
 - a. Linear Models in R Language on 23/03/2007
 - b. Regression Model in R Language on 23/03/2007

- c. Time Series Model on 24/03/2007
- d. Hands on Experience in Statistical Modeling on 24/03/2007
- 2. Dr. R. D. Chaudhari have delivered a lecture on “Statistics Using R” in Two-day State Level Seminar on “Career Opportunities in Statistics” organized by P G Department of Statistics of Sardar Patel University, V.V. Nagar during 01-02 August, 2009.
- 3. Dr. R. D. Chaudhari have delivered a lecture on “Data Analysis Using MS-Excel” in one-day workshop organized by Statistics Department, M.G. Science Institute, Ahmedabad and sponsored by Department of Biotechnology, New Delhi on 8th March 2010.
- 4. Attended two day state level workshop sponsored by KCG and Dept. of Higher Education on “The Knowledge Management Programme”, on 14th and 15th March 2011.
- 5. Attended two day workshop sponsored by DBT on “E-content development and management using freeware” on 11th and 12th Feb 2012.
- 6. Attended one day workshop on “Content Development for CBCS“ on 2nd May-2012 at Gujarat Granth Nirman Board.
- 7. Attended Two days workshop on “Content Development for CBCS “ on 13th, 14th April -2012 at Gujarat Granth Nirman Board.
- 8. Attended one day state level UGC sponsored workshop on “Statistical Computing: Procedures and applications” on 16th Mar 2013.
- 9. Attended one day workshop sponsored by Ministry of HRD GOI and DBT on “Technology Enhanced Learning” on 22nd Jan 2013.

Department of Zoology

1. **Name of the department:** Zoology
2. **Year of Establishment:** 1947
3. **Names of Programmes / Courses offered**

a. B. Sc. Zoology

4. **Names of Interdisciplinary courses and the departments/units involved:**

The Zoology department is conducting Bachelor Degree Programme (BDP) -Life Science which is an IGNOU course.

5. **Annual/ semester/choice based credit system (programme wise):**

The department has been following the University pattern from the year of establishment.

The first year, the second year and the third year students are into the semester system as the University introduced the CBCS structure from 2011 onwards.

6. **Participation of the department in the courses offered by other departments:**

Dr. N G Kotadiya guided M Sc students of Semester-IV of Zoology and Botany, Department of School of Science in 2012-13 for their dissertation work.

7. **Courses in collaboration with other universities, industries, foreign institutions, etc.**

We are offering Bachelor Degree Programme (BDP) - Life Science, an IGNOU course.

8. **Details of courses/programmes discontinued (if any) with reasons:**

No

9. **Number of Teaching posts:**

	Sanctioned	Filled
Professors	0	0
Associate Professors	1	1
Asst. Professors	-	3
Adhyapak Sahayaks	0	0

10. **Faculty profile with name, qualification, designation, specialization,**

(D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialization	Exp./ Years	No. of Ph. D. students guided
Mrs. Pratima G. Joshi	M. Sc.	Assoc. Prof & Head	Biochemistry, cytology Histology and Physiology	38	-

Mrs. A. I. Shaikh	M.Sc., M. Phil.	Assistant professor	Endocrinology and Physiology	17	-
Mr. H. G. Patel	M. Sc.	Assistant professor	Environmental science	17	-
Dr. N. G. Kotdiya	M. Sc., Ph. D.	Assistant professor	Fishery Biology	18	-

11. List of senior visiting faculty: Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: Nil

13. Student -Teacher Ratio (programme wise):

The current teacher student ration is FY (32:1); SY (28:1); TY (7:1).

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

There are two Lab Assistants, two laboratory peons.

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil/PG.:

Currently one faculty with doctorate, one with M Phil, one is pursuing doctorate.

Name	Qualification	Designation	Specialization	Exp./ Years	No. of Ph.D. Students
Mrs. Pratima G. Joshi	M. Sc.	Assoc. Prof & Head	Biochemistry, cytology Histology and Physiology	38	
Mrs. A. I. Shaikh	M.Sc., M. Phil.	Assistant Professor	Endocrinology and Physiology	17	
Mr. H. G. Patel	M. Sc.	Assistant Professor	Environmental science	17	
Dr. N. G. Kotadiya	M. Sc., Ph. D.	Assistant Professor	Fishery Biology	18	

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

Name of the Faculty	Project Duration	Title of the Project	Funding Agency	Amount
Dr. N G Kotadiya	2012-13	“Impact of physico-chemical parameters on plankton diversity in some freshwater ponds of rural area of Ahmedabad, Gujarat.”	UGC	1,95,000/-

17. Departmental projects funded by DST, DST-FIST; UGC, DBT, ICSSR, etc. and total grants received:

Dr. N G Kotadiya has received a grant of Rs 1,95,000 in 2012-13 for a minor research project from UGC

18. Research Centre /facility recognized by the University:

We provide guidance for dissertation to PG students and provide some lab facility to IAAR and CEPT.

19. Publication: List is given at the end of the document

20. Areas of consultancy and income generated: Nil

21. Faculty as members in

d) National committees b) International Committees c) Editorial Boards

- Mrs. Pratima G. Joshi is a member of the Board of Studies (Zoology) and have contributed in syllabus preparation/modifications for Gujarat University. She is also the chair person in T. Y. B. Sc. exams (Semester V & VI)

22. Student projects

a) Percentage of students who have done in-house projects including inter-departmental/programme:

- 3 UG students have completed their 3 years continue working with GEER Research Foundation, Gandhinagar for Birds Sensex. Five students are working in the same project.
- 7 UG Students are working in SAVE BIRDS programme run by **JIV DAYA PREMI ASSOCIATION.**
- Students of Sem-IV and VI regularly visit the Marine National park from Okha to Jamnagar for studying and documentation of Animal Diversity
- Students of Sem-IV and VI regularly visit the Marine National park from Okha to Jamnagar for and documentation of Animal Diversity.

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/other agencies: Nil

23. Awards/ Recognitions received by faculty and students;

Two students each year are being awarded a medal for the top ranker of university each year, viz. FY, SY and TY, have been awarded merit certificates for excellence in the subject.

24. List of eminent academicians and scientists/ visitors to the department : Nil

25. Seminars/ Conferences/Workshops organized & the source of funding

a) **National:** Nil

b) **International:** Nil

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			M	F	
BSc Sem I	2789	274	103	171	
BSc Sem III	274	50	10	40	
BSc Sem V	50	27	7	20	

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
FY B. Sc Sem II	98%	2 %	---
SYBSc Sem IV	96%	4%	---
TYBSc Sem VI	94%	6%	---

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Name	Job
Hanuman Prasad	Technical Assistant in “Food corporation of India”
Parmar Jayesh	Malaria supervisor officer in Malaria Department Gujarat

29. Student progression

Student progression	Against % enrolled
UG to PG	80%
PG to M.Phil.	10%
PG to Ph.D.	20 %
Ph.D. to Post-Doctoral	--
Employed	---
Campus selection	
Other than campus recruitment	
Entrepreneurship/Self-employment	

30. Details of Infrastructural facilities

a) Library:

The departmental library has 150 books. The central Library has other **536** books on the subject. Three journals related to zoology are subscribed by the institute

b) Internet facilities for Staff & Students:

The department has an internet portal for faculty accessibility. The students can avail internet facility for referencing in the College library.

c) Class rooms with ICT facility:

The department owns a portable LCD projector, which enables the faculty and students to give power point presentations for teaching and seminars respectively.

Department also has an OHP

d) **Laboratories:**

Two labs: Total intake capacity is 80.

31. Number of students receiving financial assistance from college, university, government or other agencies: -

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts:

- Popular lectures were arranged
- Study tour
- Seminars/assignments
- Quiz/Poster competitions
- Zoology Society meetings

33. Teaching methods adopted to improve student learning:

In addition to regular classroom blackboard teaching method, the use of LCD/OHP/seminars/study tours / competitions/popular lectures/ assignments/question paper solving etc. are used to improve student learning.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Zoology faculty are involved in PGOP / Jagrat / Adilok / Utkarsh / Admission process/youth festival/ or any unassigned work for the good of students and society.

No	Programme	Participation
1	NCC	5student
2	ICRW's Stigma reduction in HIV AIDS	1 faculty 6 students
3	PGOP	3 faculty ≈ all students
4	Jagrat	1 faculty 5 students
5	Adilok	1 faculty 10 students
6	NSS/utkarsh	2 Faculties
7	Animal lovers	All students

35. SWOC analysis of the department and Future

Strength:

- Highly qualified & dedicated staff who take keen interest in the betterment of the students in spite of poor students: teacher ratio.
- The department has very rich museum with 2000 specimens of animals from almost all phyla.

- The staff readily helps other institutions & department when ever required.

Weakness:

- Require more lab space.
- Deficiency of staff.

Opportunities:

If given new staff, labs and other requirements, more research work, publications, projects, industrial collaborations can be done leading to over all subject improvement, increased placement opportunities, with the growth of our students.

Challenges

- Very poor students : teacher ratio , so need to find ways to interact with students on regular basis
- To encourage students to read beyond their prescribed syllabus.
- To persuade students to use more reference books.
- Self motivation for research work.

19. Publications:

Journals

Dr. N G Kotadiya published the following papers

Sr. No.	Title Of The Article/ Research Paper/Book	ISSN/ISBN Number	Publication Volume /Month/Year
1	Determination of Water Quality Index and Suitability of a Rural Freshwater body in Ghuma Village, District Ahmedabad, Gujarat.	2277-4297	Life Science Leaflet Vol.-2, Page-68-75, Feb.-2013
2	Comparative study of phytoplankton diversity in two fresh water body of rural area of Ahmedabad.	2277-4297	Life Science Leaflet Vol.-4, Page-85-91, Apr.-2013
3	Plankton diversity and density in Ghuma lake, rural area of Ahmedabad.	2277-8160	Global Research Analysis Vol.-2, Page-208-211, June-2013
4	Correlation of plankton diversity and density with physico-chemical parameters in Ghuma lake, rural area of Ahmedabad.	2277-8160	Global Research Analysis Vol.-2, Page-175-178, July-2013
5	Correlation of Plankton Diversity and Density with Physico-Chemical Parameters in Godhavi Pond, Rural Area of Ahmedabad	2321-3728	The Microbes Vol.-4, Page-7-15, Sept.-2013
6	Seasonal variation and analysis of plankton in Manipur lake rural area of Ahmedabad.	2277-4297	Life Science Leaflet Vol.-10, Page-41-48, Oct.-2013

Participation

Mrs. P. G. Joshi has attended the following seminars/workshops:

- Attended a programme as a Judge for patriotic song competition, held at Gujarat University organized by Gujarat University on 20/07/2007.
- One day study tour of Lingada, for **fresh water fishery** on 25/07/2007.
- As a panel judge for Inspection of education colleges of Gujarat university, 08/10/2007.
- A series of lectures –SCIXL-2008 a State level science excellence organized by Department of Botany Gujarat University, and **GUJCOST**
- **Excursion tour at kerala** on 19/11/2008 to 27/11/2008 for SY B.Sc. and TY B.Sc.
- Visit to **Jim Corbett National Park-Uttarakhand**. Nov, 2008.
- To attend as a chair person & delegate conference **International on Biomedical and Genomic research**” organized by Department of Zoology and BMTC School of Science Gujarat University on 29-31, Jan, 2009.
- **“Potential alternatives to dissection and animal experimentation in zoology and the practical curriculum”**, a National workshop cum symposium organized by department of zoology Kaladera, Jaipur, Rajasthan on 19-21Nov-2009.
- Seminar on **“Teacher Training Programme in Bioinformatics”** organized by Microbiology Department, M. G. Science Institute, Ahmedabad, DBT, 21/11/2009.
- **“Current Trends in Microbiological Sciences”** –UGC Sponsored a national seminar organized by Department of Microbiology M G Science Institute, Ahmedabad on 23-24, Jan, 2010.
- **“Hands on training in Animal Cell Culture”**, at INTAS Biopharmaceutical Company, Ahmedabad on 8-10, Feb, 2010.
- Attended a series of lectures on **“Animal Tissue Culture”** organized by Zoology Department , by INTAS Biopharmaceutical company, Ahmedabad, M. G. Science Institute, Ahmedabad, 22, Feb. - 2010.
- **“Data analysis using MS, Excel”** a workshop organized Department of Statics M G Science Institute, Ahmedabad on 8-March, 2010.
- **“Role of CPC SEA in Education and Research”** organized by **Ministry of Environment and Forests** CPC SEA Government of India New Delhi, at Nirma University Campus, Ahmedabad. 15-March, 2010.
- Seminar on **“Climate Change Scenario: SPIPA** Campus, Ahmedabad, 08/06/2010.
- **“Rational drug designing” a workshop** organized by Microbiology department M G Science Institute, Ahmedabad On 11-Feb, 2011.

- **“Molecular Biology Workshop (GMO detection, PCR)”** organized by Department of Microbiology M G Science Institute, Ahmedabad on 3-5, March, 2011.
- Organized and attended a series of lectures on **“Human Physiology”** on 27th, April- 3rd May, 2011. At M.G. Science Institute for university faculties of zoology (**Choice based credit system**).
- **“Creating Excellence for Sustainable Society”**, cross disciplinary International seminar organized by Hemchandracharya University, North Gujarat at Patan on 15-16 may, 2011.
- **“Basic techniques in the Animal Tissue Culture”**, organized Zoology Department M.G. Science Institute, 27-May-2011.
- Organized and attended a workshop programmed for Sem-I & Sem-II in **“Human Physiology and other practical”** on 6-8, June, 2011 at M.G. Science Institute for university faculties of zoology (**Choice based credit system**).
- Paper presentation on **“walk through aquarium of Jamnagar marine national park in the International seminar on Bio-resources and human substances”**, organized by Cotton College, Guwahati, Assam, India on 20-22 Oct, 2011.
- Visit to Kaziranga National park as a part of **“International seminar on Bio-resources and human substances”**, organized by Cotton College, Guwahati, Assam, India on 20-22 Oct, 2011.
- Attended an **“International seminar on Bio-resources and human substances”**, organized by Cotton College, Guwahati, Assam, India on 20-22 Oct, 2011.
- **“Training and Capacity Building programme in life Sciences”**, organized by Knowledge consortium of Gujarat held at Ahmedabad Management Association from 31-Oct to 5-Nov, 2011.
- **“Research Methodology: A March Towards Creating Research Culture”**, a national workshop organized by Hemchandracharya University, North Gujarat, at Patan on 21-24 Nov, 2011.
- Organized one day workshop for Abhijat Vidyavihar, Higher Secondary School Students on Basic techniques in Animal tissue culture, at Zoology Department M. G. Science Institute, on 29-Nov, 2011.
- Organized workshop for H. B. Kapadia, Higher Secondary School Students on Basic techniques in Animal tissue culture, at Zoology Department M. G. Science Institute, on 29-30, Nov, 2011.

- **Hands on Training** on Animal Cell culture, DNA Isolation from human lymphocytes, RNA separation and cloning and antibody generation ELISA at Nirma University, Ahmedabad, on **14-19 May 2012**.
- **“Hands on training on Animal Cell Culture”** including Human Peripheral blood, Nirma University. 16-April-2012.
- **“Assessment of Health Status based on body composition”**, a workshop organized Biochemistry Department DBT Star College Programme, 22-Feb-2013.
- **“Geomorphology-evolution of land forms through time”** UGC sponsored **National seminar**, organized Geology Department, M.G. Science Institute, Ahmedabad **08- 9 March-2013**.
- Organized and attended a workshop and hands on training programme on **“Preparation of Karyotype from Human Blood”**, supported by Gujarat Cancer research Institute, Ahmedabad, at Zoology Department M G Science Institute, Ahmedabad on 23-26 Oct, 2013.

Mrs. Anees I. Shaikh

- Attended a series of lectures on **“Animal Tissue Culture”** organized by Zoology Department , by INTAS Biopharmaceutical company, Ahmedabad, M. G. Science Institute, Ahmedabad, 22, Feb. - 2010.
- Excursion tour at Veraval, Fishery Centre. 3 Dec, to 07Dec, 2010 for SY B.Sc. and TY B.Sc.
- Attended workshop on” **Intellectual Property Right Awareness-2011”**, organized by Gujarat university at Botany department, Ahmedabad on 16, June 2011.
- Attended a series of lectures on **“Human Physiology”** on 27th, April- 3rd May, 2011. At M.G. Science Institute for university faculties of zoology (**Choice based credit system**).
- Attended a workshop programmed for Sem-I & Sem-II in **“Human Physiology and other practical”** on 6-8, June, 2011 at M.G. Science Institute for university faculties of zoology (**Choice based credit system**).
- **Training and Capacity Building programme in life Sciences”**, organized by Knowledge consortium of Gujarat held at Ahmedabad Management Association from 31-Oct to 5-Nov, 2011.
- Excursion tour at Nainital, 28 Feb, to 7 March, 2012 for SY B.Sc. and TY B.Sc.
- Excursion tour at Okha on 20- 27 Feb, 2013 for SY B.Sc. and TY B.Sc.

- Attended a workshop and hands on training programme on **“Preparation of Karyotype from Human Blood”**, supported by Gujarat Cancer research Institute, Ahmedabad, at Zoology Department M G Science Institute, Ahmedabad on 23-26 Oct, 2013.

Mr. H. G. Patel has attended the following seminars/workshops:

- One day study tour of Lingada, for **fresh water fishery** on 25/07/2007.
- Participated in training programe at Ambaji, 18/02/2008.
- **Excursion tour at kerala** on 19/11/2008 to 27/11/2008 for SY B.Sc. and TY B.Sc students.
- Excursion tour at Okha, 6 to 8 Jan, 2009 for SY B.Sc. and TY B.Sc students.
- Seminar on **“Teacher Training Programme in Bioinformatics”** organized by Microbiology Department, M. G. Science Institute, Ahmedabad, DBT, 21/11/2009.
- **“Hands on training in Animal Cell Culture”**, at INTAS Biopharmaceutical Company, Ahmedabad on 8-10, Feb, 2010.
- Attended a series of lectures on **“Animal Tissue Culture”** organized by Zoology Department, by INTAS Biopharmaceutical company, Ahmedabad, M. G. Science Institute, Ahmedabad, 22, Feb. - 2010.
- **“Alternatives to use of Animals in Bioscience”**, organized by Gujarat University, at Department of Zoology School of Science, 22-23 Sep, 2010.
- As a panel judge for **“Science fair”** organized by Xavier’s school, at Hansol Gujarat, 07, Oct, 2010.
- Excursion tour at Veraval, Fishery Centre. 03-07 Dec, 2010 for SY B.Sc. and TY B.Sc.
- **“Innovative Approaches to Biological Sciences: Resent Perspectives”** Sponsored by UGC, organized by J. & J. College of Science, at Nadiad, Gujarat, on 3, Jan. 2011.
- **“Molecular Biology Workshop (GMO detection, PCR)”** organized by Department of Microbiology M G Science Institute, Ahmedabad on 3-5, March, 2011.
- Attended a series of lectures on **“Human Physiology”** on 27th, April- 3rd May, 2011. At M.G. Science Institute for university faculties of zoology (**Choice based credit system**).
- Attended a workshop programmed for Sem-I & Sem-II in **“Human Physiology and other practical”** on 6-8, June, 2011 at M.G. Science Institute for university faculties of zoology (**Choice based credit system**).
- Attended workshop on **“Intellectual Property Right Awareness-2011”**, organized by Gujarat university at Botany department, Ahmedabad on 16, June 2011.
- Attended training programme On **“Biodiversity Conservation”**, organized by SPIPA and GEER foundation at Ahmedabad, on 28-30 July, 2011.
- **“Training and Capacity Building programme in life Sciences”**, organized by Knowledge consortium of Gujarat held at Ahmedabad Management Association from 31-Oct to 5-Nov, 2011.

- Organized one day workshop for Abhijat Vidyavihar, Higher Secondary School Students on Basic techniques in Animal tissue culture, at Zoology Department M. G. Science Institute, on 29-Nov, 2011.
- Organized workshop for H. B. Kapadia, Higher Secondary School Students on Basic techniques in Animal tissue culture, at Zoology Department M. G. Science Institute, on 29-30, Nov, 2011.
- Study tour at Corbet national park, 28 Feb, to 7 March, 2012 for SY B.Sc. and TY B.Sc.
- **Hands on Training** on Animal Cell culture, DNA Isolation from human lymphocytes, RNA separation and cloning and antibody generation ELISA at Nirma University, Ahmedabad, on **14-19 May** 2012.
- **“Hands on training in molecular biotechnology tool and techniques”**, organized by S.K. Patel College of pharmaceutical education and research, at Kherva, Gujarat on 10-12 Sep, 2012.
- **“Regional science congress on science for shaping the future of India”**, organized by M. S Uni. at Baroda on 15-16, Nov 2012.
- Attended **“Science Manthan-2013”**, organized by Charusat Uni. at Changa, Gujarat 09-Feb, 2013.
- Attended a National Seminar on **“Bird Habitats and their conservation”**, organized by Hemchandracharya University, North Gujarat, at Patan on 16-Feb, 2013.
- Excursion tour at Okha 20/02/2013 to 27/02/2013 SY B.Sc. and TY B.Sc.
- Attended a workshop and hands on training programme on **“Preparation of Karyotype from Human Blood”**, supported by Gujarat Cancer research Institute, Ahmedabad, at Zoology Department M G Science Institute, Ahmedabad on 23-26 Oct, 2013.

Dr. N. G. Kotdiya

- Excursion tour of Okha, 6 to 8 Jan, 2009 for SY B.Sc. and TY B.Sc.
- Seminar on **“Teacher Training Programme in Bioinformatics”** organized by Microbiology Department, M. G. Science Institute, Ahmedabad, DBT, 21-Nov, 2009.
- Attended a series of lectures on **“Animal Tissue Culture”** organized by Zoology Department, by INTAS Biopharmaceutical company, Ahmedabad, M. G. Science Institute, Ahmedabad, 22, Feb. - 2010.
- **“Hands on training in Animal Cell Culture”**, at INTAS Biopharmaceutical Company, Ahmedabad on 8-10, Feb, 2010.
- **“Alternatives to use of Animals in Bioscience”**, organized by Gujarat University, at Department of Zoology School of Science, 22-23 Sep, 2010.
- Excursion tour of Veraval, Fishery Centre. 03-07, Dec, 2010 for SY B.Sc. and TY B.Sc.

- **“Innovative Approaches to Biological Sciences: Resent Perspectives”** Sponsored by UGC, organized by J. & J. College of Science, at Nadiad, Gujarat on 3, Jan. 2011.
- **“Molecular Biology Workshop (GMO detection, PCR)”** organized by Department of Microbiology M G Science Institute, Ahmedabad on 3-5, March, 2011.
- Attended a series of lectures on **“Human Physiology”** on 27th, April- 3rd May, 2011. At M.G. Science Institute for university faculties of zoology (**Choice based credit system**).
- Attended a workshop programmed for Sem-I & Sem-II in **“Human Physiology and other practical”** on 6-8, June, 2011 at M.G. Science Institute for university faculties of zoology (**Choice based credit system**).
- Attended workshop on **“Intellectual Property Right Awareness-2011”**, organized by Gujarat university at Botany department, Ahmedabad on 16, June 2011.
- **“Training and Capacity Building programme in life Sciences”**, organized by Knowledge consortium of Gujarat held at Ahmedabad Management Association from 31-Oct to 5-Nov, 2011.
- **“Research Grant Methodology”** organized by JJT, University, at I. K. patel college of Pharmaceutical Education and Research, Himatnagar, 8-April, 2012.
- **“Conservation of biodiversity and environment: A challenge”**, sponsored by UGC, organized by K. K. Shah Jarodwala Maninagar Science College, at Ahmedabad. 05-Jan, 2013.
- **“National Research Paper Presentation Competition”** organized by JJT, University, at Saffrony Institute of Technology, Mehsana, Gujarat 6, Jan.-2013.
- **“Technology Enhanced Learning (TEL)”**, organized Department of Microbiology (DBT) M. G. Science Institute, Ahmedabad, on 22 Jan, 2013.
- **“Bioscientific Technologies – An Elixir for Research in 21st Century”**, organized by Shree M. N. Virani Science College, at Rajkot, Gujarat on 2, Feb.-2013.
- **“Geomorphology-evolution of land forms through time”** UGC sponsored **National seminar**, organized Geology Department, M.G. Science Institute, Ahmedabad **08- 9 March-2013**.
- Attended **“Sort term programme course in computer”** in academic staff college, Ahmedabad, 12/03/2013.
- Attended a workshop and hands on training programme on **“Preparation of Karyotype from Human Blood”**, supported by Gujarat Cancer research Institute, Ahmedabad, at Zoology Department M G Science Institute, Ahmedabad on 23-26 Oct, 2013.