

CHAPTER – 4

INFRASTRUCTURE AND LEARNING RESOURCES

Good infrastructural facilities are a value addition and imply to a certain extent willingness on the part of the administrative mechanisms to make use of the available resources to the optimum. However good the infrastructural facilities may be, these do not and cannot compensate for the absence of teaching-learning exercise that takes place in the classrooms. Therefore, institutions that have good infrastructure but are found wanting insofar as teachers are concerned run aground in no time. Our founders took care to ensure that good infrastructural facilities available in the university are fortified through recruitment of quality teachers and instructors. Our founder Vice Chancellor had a knack for spotting and recruiting talented teachers from all over the country and this has served us well throughout our existence.

Sardar Patel University has always paid attention to the creation and use of good learning resources. It has thus far refused to be constrained by funding shrinkages where learning resources are concerned and has ensured that the libraries are stocked with the latest books in each and every subject-discipline. It tends to treat computer literacy with a certain degree of sensitivity and has been proactive in adapting to computers as a learning resource as well as a very powerful administrative tool. Besides this, it has provided for Internet connectivity in all its university Departments by making arrangements for the availability of adequate Internet connections with high bandwidth.

4.1 The Uses of Computers as a Learning Resource in the University are Manifold.

- 1 **Computers and Computing:** We use the computers as office automation tool, for data management, data mining, and research. The basic use of computers is being taught in all the departments
- 2 **Internet Connectivity:** The University has provided Internet connectivity to all Postgraduate Departments with sufficient nodes. Postgraduate students, MPhil and PhD scholars are encouraged to use this facility. Effective use of the Internet for literature search and E-transfer of data is greatly helping students and researchers alike in preparations for seminars, designing research and project proposals, updating and refining their dissertations and theses, and electronically communicating and managing their research papers. Over and above all this, it has become an extraordinary powerful means of establishing and maintaining academic contact and information exchange with other workers and peers, greatly enhancing research effort. In many cases, this had led to joint publications of research papers. The faculty and students are actively using the e-resources provided under the UGC-INFONET programme.
- 3 **Training for freeware:** The University has begun to train students in the effective use of relevant freeware. The use of the technical software LaTeX is taught to MPhil/PhD scholars in the University Departments of Mathematics, Statistics, and Physics with a view to equipping them with the necessary skills to be able to prepare technical material.
- 4 **Training in specialized software:** Relevant computer courses with practical training on computers are on offer in many Departments. Besides computer programming course of varying degrees of sophistication, also include training students in effective use of readily available specific software like FORTRAN in Physics, MATLAB and MATHEMATICA in Mathematics, SPSS in Statistics, SOUL in library science etc.
- 5 Teaching of courses like computers and statistical methods in the Department of Biosciences, Department of Home Science and Departments of Social Sciences helps learners acquire important analytical ability for experimental studies as well as enables them to use many modern scientific equipments with which computers remain attached effectively in modern times.

- 6 The Department of Computer Science and Technology trains students in the design and development of software.
- 7 **Computers as teaching aid:** We have begun to explore the full potential of computers as an effective teaching aid. We encourage the use of multimedia in classroom teaching. A section of the members of faculty in some Departments have succeeded in designing software to meet their needs: to prepare their PowerPoint presentation slides; to facilitate classroom teaching; and to keep assignments as well as reading materials on servers so that soft copies can be accessed through work stations. Most Departments have software tools required for developing computer-aided teaching-learning materials. The Department of Computer Science and Technology designs computer-aided instructions packages as aids for teaching and learning.
- 8 **E-Groups:** Dr DJ Karia of Mathematics Department is organizing and coordinating the following academic e-groups:
 1. ugcnetmath@yahoogroups.com
 2. topologicalalgebras@yahoogroups.com

of course, we have begun planning to establish LAN connecting all Departments, all administrative units and the library for fast and efficient data transmission. We are also exploring the possibility of online teaching and examination.

Numbers of Computers at University Departments and Administrative Sections

No	Department	No of Computers
1	Biosciences	50
2	Business Studies	75
3	Computer Science	200
4	Chemistry	10
5	Economics	29
6	Education	11
7	Electronics	45
8	Gujarati	18
9	Hindi	11
10	History	03
11	Home Science	23
12	Library & Information Science	26
13	Materials Science	18
14	Mathematics	75
15	Business Administration (MBA)	80
16	Social Work (MSW)	29
17	Physics	44
18	Political Science	03
19	Psychology	05
20	Pharmaceutical Science	26
21	Sanskrit	05
22	Sociology	08
23	Statistics	144
24	University Instrumentation Centre (USIC)	05
25	Centre for Interdisciplinary Studies in Science & Technology (CISST)	23
26	University Administrative Building (Main Office)	79
27	Computer Centre	60
28	Bhaikaka Library	20

No	Department	No of Computers
29	Humanities Building Office	04
30	University Press	20
31	University Museum	03
32	MB Patel College of Education	35
33	University Health Centre	03
34	Agro Economics Research Centre	32
35	C C Patel Community Science Centre	02
36	Community Radio Station	01
Total		1225

In all Basic Sciences and couple of Humanities and Social Science Postgraduate Departments, there are separate computer laboratories.

4.2 Library as Learning Resources

A unique feature of the library system in Sardar Patel University is that there is a Central Library (Bhaikaka Library) with satellite libraries in the form of departmental libraries in each department.

(A) Bhaikaka Library

Bhaikaka Library, named after the illustrious founder of the educational township as well as the University, came into existence in 1957, with the purchase of 3000 books. A grant of Rs.10 lacs (2/3, 1/3 sharing basis) was provided by UGC for the construction of the library building and purchase of furniture and equipment. The present library building was inaugurated by the Late Prime Minister, Shri Lal Bahadur Shastri on 31st October, 1964.

Bhaikaka Library is a four-story building, with two large reading rooms and one ladies reading room. The capacity of reading room/ladies reading room is 350 students each. The stack area is divided in four part in which the capacity is up to 3,00,000 documents. The students can access the documents from consisting of books, periodicals, theses, dissertation, reference books, donated books and non-book material.

The membership of the Bhaikaka Library is made available to the students, teaching staff, non-teaching staff as well as affiliated college staff and students.

(i) Library Automation

Bhaikaka Library has already initiated computer automation. At present **2,34,126** of the books in the acquisition have been entered in SOUL software which is developed by INFLIBNET. All the books have given Barcode on the basis of their accession No Issue counter is issuing the documents by scanning the Barcode. Now there is no manual process in issue return.

(ii) Services Provided

Reading Room Facilities	DELNET Access
Internet Facilities	E-journals access
Cyber Cafe	Scanning Facilities
Women's Reading Room Facilities	CD Writing
Inter Library Loan Services	Current Awareness Services
Photocopying facilities	Selective Dissemination Information (SDI)
Reference Services	Thesis/Dissertation
Online Public Access Catalogue (OPAC)	UGC – INFONET

Total Number of Books 2, 34,126 (2013-2014)

Total Number of Journals Subscribed (2013-2014)

	Recurring grant	Special Grant	Total
Indian	163	41	204
International	58	53	111
Total	221	94	315

E-journal – 5,000+ accessible at <http://202.141.130.70/e-resources.php>

Information available on <http://www.spuvvn.edu/libraryinfo.htm>

Archives: ----- Theses 2125

Non-book collection: 743 Special Collection 636

American Collection: 158+9 CD Gandhian collection 300

Charotar Sarva Sangrah

Non-book collection accessible at <http://www.spuvvn.edu/cdbook.pdf>

(iii) University Publications

- Bhaikaka Library is looking after all the activities related to Publication since the inception of University.
- The University has been publishing the following Journals/Bulletins on regular basis.
- Sheel Shrutam (Monthly news bulletin of the University) (Bhaikaka Library)
- Vocational Guide (University Employment Bureau)
- Journal of education and psychology (Department of Education, Sardar Patel University, Vallabh Vidyanagar)
- Artha Vikas (Department of Economics, Sardar Patel University, Vallabh Vidyanagar)
- PRAJNA-University Journal of Basic Sciences
- PRAJNA-University Journal of Social Science and Business Studies
- Journal of Engineering and Technology (Birla Vishwakarma Mahavidyalaya)
- Mimansa-Journal of English Literature (Department of English, Sardar Patel University)
- Synergy-Journal of Business Studies Administration (Department of Business Administration, Sardar Patel University)

(iv) Books

Total 183 books have been published so far by the Publication Section Bhaikaka Library, Sardar Patel University, Vallabh Vidyanagar.

(v) Gnan Gangotri Gujarati Publication (A Book of Knowledge)

The Gnan Gangotri series, thanks to the generous grant received from the Central and State Government and Donations from Hari Ohm Ashram and others has come to be just such in Encyclopaedia but with a different knowledge and information embodied in the essays of various subject, arranged collected in different volumes. The series has been widely acclaimed as unique. The University naturally feels gratified for having answered the need of such books. So far thirty (30) volumes in Gujarati and five in Hindi have been published. List of the publications are availed on the Website of Sardar Patel University.

The following books are published under Hari Ohm Ashram Prerit Shri Anand Shankar Bapubhai Dhruv Smarak Trust.

- | | | |
|-----------------------|------------------|----------|
| 1) Meera | Niranjan Bhagat | Rs 80.00 |
| 2) Dayanand Saraswati | Dr Jigish Pandya | Rs 70.00 |

Details of the Books, which were sent to University Press for its Publication

Sr No	Title of Book	Author's Name
1	An analytical study of Human Resource Accounting practices in selected Public Enterprises in India	Dr Samir M Vohra
2	A comparative study of selected microfinance Institutions in Gujarat	Dr Gaurangkumar C Barot

Sr No	Title of Book	Author's Name
3	Development of a critical thinking programme and its effectiveness for students of Class-IX	Dr Divyesh M Patel
4	A study of teaching aptitude of BEd trainees of Gujarat State	Dr Usha S Sharda
5	Shree Ramanandacharya Pranit “Shree AnandBhashya: Ek adhyayan	Dr Vipulbhai M Shrimali
6	Chitsukhachaavy Pranit Tatva Pradipika nu Vivechat - mak Adhyayan (Dwitya Paricheeda na sandarbhma)	Dr Divyaben D Patel
7	Perception about our Life, Philosophy and alternative therapy for health	Dr Bharatkumar N Pandya
8	Lokkathama Adirupo : Manovaignanik drashtikon	Dr Pinakini Pandya
9	Gujarati Lok sahityana Sanshodhan sampadanno Itihas	Dr Param R Pathak
10	Major Research project “Rural information centre for Anand District	Dr Urmila A Thaker

(vi) Reprographic Services

Reprographic Services are available to the research students, teachers and other users from time to time.

(vii) E-Information to Faculty and Researchers: E-mail address: unilibspu@gmail.com.

- Bhaikaka Library has got the membership with DELNET. Students and teachers are getting the facilities of DELNET. Syndicate has approved the MOU with DELNET and renewed for the year 2013-2014.
- Library automation is done by SOUL Software and its use in various sections like books issuing and return, Stock verification, periodical publication and acquisition process.
- Statistical updated information of Bhaikaka Library put before University Website. It can be available on: <http://spuvvn.edu/administration/service-centres/library/>
- Dr Shishir H Mandalia, I/c University Librarian, Bhaikaka Library has conducted users awareness programme for the teachers and the students. The programme aimed apprise their about the shodhganga and the MoU signed with the INFLIBNET

(B) Departmental Libraries

The departmental library in almost every department caters to the specific needs of respective department. These libraries contain recent issues of research journals, textbooks in respective subjects, as well as the books obtained gratis or purchased from research project/s over the years. They also contain non-traditional reading material, photocopied and loosely bound editions. These libraries have Internet connectivity and library staff (in some cases). There are reading rooms attached to these libraries, and books are issued to students of the department regularly on demand.

DEPARTMENTAL LIBRARIES

Sr No	Department	Carpet Area (Square Feet)	Seating Capacity
1	Department of Biosciences	925	25
2	Department of Chemistry	3750	40
3	Department of Computer Science	900	25
4	Department of Electronics	1200	35
5	Department of Home Science	400	12
6	Department of Materials Science	400	12
7	Department of Mathematics	2166	45
8	Department of Physics	1000	27

9	Department of Statistics	525	10
10	Department of Business Administration(MBA Programme)	5230	50
11	Department of Business Studies	200	5
12	Department of Economics	600	15
13	Department of English	1800	45
14	Department of Gujarati	800	20
15	Department of Hindi	300	8
16	Department of History	100	2
17	Department of Political Science	450	12
18	Department of Psychology	2000	45
19	Department of Education	1500	35
20	M B Patel College of Education		
Total Carpet Area of All Departmental Libraries		23880	

NBHM-DAE REGIONAL LIBRARY IN HIGHER MATHEMATICS IN THE DEPARTMENT OF MATHEMATICS

National Board for Higher Mathematics (NBHM) is an autonomous Board under the Department of Atomic Energy (DAE), Government of India. The NBHM has an ambitious plan of developing a network of rich high-level regional library system on higher mathematics in the country. The regional library for the western region is getting developed in the Department of Mathematics as a national facility.

Highlights:

- Housed in the department with separate cataloguing.
- Funded by the National Board for Higher Mathematics, Department of Atomic Energy, Government of India.
- Annual Grant ₹ 32,00,000/- (Total grant so far in tune with ₹ 2.1 Crores)
- About 5000 books of Teaching and Research Level in Mathematics.
- 46 Journals subscribed; Back volume of 50 Journals
- Free membership to anyone interested in Mathematics.
- Access to the library to visitors (up to extended hours on request).
- Two High Speed Photocopying Machines with Computer Connectivity.
- Internet Connection with access to e-resources through INFLIBNET.
- Supply of photocopies on request.
- Circulation of Library News Letter for to update users outside SPU
- MATHSCINET
- SOUL Server

4.3 Central Facilities

(A) University Computer Centre

The Computer Centre of Sardar Patel University is the central hub for providing software and hardware solutions to the entire campus. All the major tasks of various sections like Establishment, Examination, Academic, USIC and Accounts are computerized with the help of the Computer Centre. Payroll processing, Examination Results Processing (Pre, On and Post), Budget preparation, Centralized Admission process, etc. are some of the key activities at the Computer Centre.

Due to the advancement of technology, the University has decided to install an ERP for student life cycle management and other administrative tasks. The software is a procured from the third party and the Computer Centre staff is involved in testing the software which caters to the needs of other sections. The staff has also made the foundation data ready for various sections like Academic, Examination and Establishment. The Centre will also train the stakeholders who will be using the

software which include the administrative staff of the university and affiliated colleges. The software will help the students and others to work online using the software.

The 1 Gbps Internet connectivity under NME-ICT (National Mission on Education through ICT) is provided to various Departments and sections of the University by the computer centre. It includes new connections, maintenance of existing connections and anti-virus solutions. The computer centre has given around 700 Internet connections through fiberoptics and 500 Wi-Fi connections to various departments, sections and satellite campuses.

Apart from the regular MIS activities, the computer centre provides assistance in purchasing of computer hardware and software to the entire university.

The computer centre conducts practical for the postgraduate students of Department of Home Science

An extension of the building of the Computer Centre was carried out for facilitating the examination work.

(B) USIC

University Science Instrumentation Centre (USIC) extends its Maintenance, Repairs and Fabrication Support Services to all the under-graduate colleges and postgraduate departments of Sardar Patel University in the areas of Electronics, Electrical, Mechanical and Glass Blowing. We wide this activity earned consultancy charges of ₹ 1,74,285 for year 2013-2014.

Apart from above, other utility and essential services as mentioned and listed below are also offered and provided by USIC on regular day to day basis.

- Audio Services – Maintenance and Operational for the entire University.
- Light and Heavy Fabrication work at its well equipped Mechanical workshop.
- Repairing of Electrical, Electronic instruments/Gadgets.
- Repairing of Optical Instruments
- Entire Telephony Network of the University is maintained by USIC Technicians including maintenance of individual EPABX's housed in Postgraduate departments
- Air Conditioning and Refrigeration Services (Regular Service and Maintenance) of all window and Split AC's Water Coolers, Deep Freezers etc is provided by USIC technicians.
- Design, Development and Fabrication of various Instruments as per requirements of Research Scholars.
- Glass Blowing services (Repairs and fabrication of Glassware)
- Glass Blowing services (Repairs and fabrication of Glassware)
- Number of Job Cards Attended during the Year (2013-2014): > 500

(C) University Museum

Up-gradation of Museum Galleries

In order to enhance visitors experience new exhibit labels and info panels were prepared.

- Three illustrated Gallery titles were designed by Museum-Curator and were printed on foam-sheet of 5x2 feet size for the galleries namely Memorabilia of Sardar Patel and Eminent Works of Art, Pre & Proto History Gallery and Asian Art Gallery. These titles are installed at the entrance of respective galleries
- Two illustrated info-panels were designed by Museum-Curator and were printed on foam-sheet of 4x4 feet size. These panels depict our great ancient Indus Valley Civilization dating back to 3500 B.C.-1700 B.C. The text consists of various facts like beginning of civilization, town planning, scripts & seals, political & economical life, industrial art, trade & transport, religion & costumes, harappan art & downfall of Indus Valley Civilization. These info-panels are installed in the Pre & Proto History Gallery

- Two illustrated info-panels were designed by Museum-Curator and were printed on foam-sheet of 6x4 feet size which focuses world renowned Ajanta Frescos and Ellora Rock Cut Architecture. Both of them are World Heritage Archaeological Sites of India. The photography at the site and textual research work is done by Museum-Curator. Both of the info-panels are displayed on the wall of passage leading to the next floor
- Bilingual labels (i.e. labels in English and Gujarati) are made for five and two table showcases of Asian Art Gallery and Pre & Proto History Gallery respectively. These labels were printed on transparent OHP sheets and pasted from inside the showcase glass. This innovation enhanced the aesthetics and reduced visual obstructions in the display
- Bilingual labels (i.e. labels in English and Gujarati) are made for Ravishankar Raval's Paintings. Another group of bilingual labels along with thumbnails are prepared for Photographs of Sardar Patel in the gallery titled "Memorabilia of Sardar Patel and Eminent Works of Art"

Restoration Work

Restoration work was carried out to enhance life of the objects....

- Restoration and re-framing work of Santokba's paintings is done. Four such paintings were restored and displayed in the gallery named Memorabilia of Sardar Patel and Eminent Works of Art
- 2x7 feet Canvas print of group photo (clicked on 24th January 1950) of members of constituent assembly who contributed to write our constitution of India was framed on stretcher and displayed in the gallery named Memorabilia of Sardar Patel and Eminent Works of Art

Educational Activities

- Under Museum Awareness Program 2013-2014, Museum has sent letters to invited various schools of Vallabh Vidyanagar-Anand and received bookings for the same. In such Museum visits, the students were given an orientation lecture by Museum-Curator followed by a guided tour to the Museum galleries. At the end of each conducted visit, Museum has made an arrangement of documentary show (available in English/Hindi) on LCD. Around 7,800 school students along with 456 teachers have visited University Museum

Acquisition

University Museum had acquired objects as follows....

- Museum has acquired a canvas print of group photo (clicked on 24th January 1950) of members of constituent assembly who contributed to write our constitution of India. This canvas print of 2'x7' size was purchased from Shri Naresh Chand Dongria, a researcher from Lucknow, Uttar Pradesh, who is working on the subject of constitution of India. It is acquired under the financial help received from central development fund of the University. After framing on stretcher, this canvas print of group photo is displayed in the gallery named Memorabilia of Sardar Patel and Eminent Works of Art
- Anand Philatelic Association has shown interest to help and develop a philatelic section in Museum. They are willing to donate some stamps from their collection for the same. The Philatelic Section is under formative stage
- Canon EOS 600D, a digital SLR camera is acquired by Museum for the purpose of photo documentation of Museum objects. It is acquired under the financial help received from central development fund of the University

Exhibitions

- Freedom Fighters and Reformers of India – *Yaad Inhe Bhi Kar Lo* A Philatelic Exhibition in collaboration with Anand Philatelic Association (August 30 – September 10, 2013).
- The exhibition was inaugurated by Dr Harish Padh, Vice Chancellor, Sardar Patel University Press Conference was organized prior to the inauguration to publicize the event on 23.08.2013 and press kits were given to journalists from press and media Special Cover was released by India Post on August 30, 2013.
- As a part this exhibition Museum had released a special cover to commemorate the event.

- Shri B B Dave, Postmaster General, Vadodara region had released the special cover and was present the same to Dr Harish Padh, Vice Chancellor, Sardar Patel University.
- Dr Harish Padh, Vice Chancellor, Sardar Patel University also released an Exhibition Souvenir which was prepared by Museum. Philatelic Counter from Anand Post (August 30 – September 5, 2013). Through this counter Anand Post made available stamps on sale for hobby collectors.
- My Stamp Counter from Vadodara post (August 30 – September 5, 2013).
- Another interesting activity was organized namely My Stamp. In this activity, after paying a fixed charge to Post Department, visitors can get their photograph printed along with the sheet of postal stamp. The Museum had also organized series of workshops namely Philately – a hobby of learning for schools and colleges during the exhibition. Around 1500 students had participated in the workshop *Krishnaleela* An exhibition of Indian Miniature Paintings and Pichhvais from the collection of Shrim Handicrafts, Ahmedabad (January 4-10, 2014) this was a part of celebrating Museum Week (January 7 to 14).
- The exhibition was inaugurated by Dr Harish Padh, Vice Chancellor, Sardar Patel University. He also released ‘bookmark’ as an exhibition souvenir.

Museum Brochure

- On January 4, 2014, Dr Harish Padh, Vice Chancellor, Sardar Patel University released a Museum Brochure which was prepared by Museum-Curator. The brochure contains primary information about Museum was published under the financial help received from central development fund of the University

Workshops

University Museum had organized various workshops and also undertaken projects as follows....

- Hands on Experience - one day workshop was organized on June 25, 2013; for 93 Trainee Teachers of Waymade College of Education, Vallabh Vidyanagar
- Museum Orientation Program one day workshop was organized on June 26, 2013; for 10 Faculty Members of GCET Engineering College, in collaboration with Waymade College of Education, Vallabh Vidyanagar
- Slide Presentation Program was organized on September 11, 2013; for 120 students of Swaminarayan Gurukul, Ramnagar-Mogar, in collaboration with GCET Engineering College, Vallabh Vidyanagar
- Museum Orientation Week was organized from July 26, 2013 to August 1, 2013. Students are invited from various institutions namely....
 - Shri D N Institute of PG Studies in Commerce, Anand
 - Law Collage, Anand
 - CVM Fine Arts College, Vallabh Vidyanagar
 - Nalini Arvind Arts College, Vallabh Vidyanagar
 - PG Department of Sanskrit, SPU, Vallabh Vidyanagar
 - Around 450 participants were benefitted with lectures, slide presentations; gallery talks and also educational documentaries were shown to them

Projects

On-going projects of Museum are as follows....

- In November 2013, “Digitization of Sanskrit Manuscripts of Museum Collection” a project is undertaken in collaboration with Library and Information Science Department, SPU for scanning of manuscripts, It is in progress
- To enhance the preservation and storage condition of manuscripts special kind of card paper folders are developed by the Museum. Making of such folders for each manuscript is in progress
- On January 7, 2014, a collaborative one day National Workshop on “History Museum: Relevance, Establishment and Management” was organized at Department of History, N S Patel Arts College, Anand
- Photographic documentation of Museum objects is in progress
- The Coins’ Section, which will showcase Ancient Indian Coins is in formative stage

- The Tribal Art Section, which will display tribal art forms is in formative stage

Lectures

Curator-Museum had delivered lectures as follows....

- Museum Management a lecture delivered for 93 Trainee Teachers of Waymade College of Education, Vallabh Vidyanagar on June 25, 2013
- Museum Orientation a lecture was delivered for 10 Faculty Members of GCET Engineering College on June 26, 2013
- Introduction to SPU Museum a lecture was delivered for 120 students of Swaminarayan Gurukul, Ramnagar-Mogar on September 11, 2013
- Museum Orientation lecture, slide presentation and guided tour was organized for the students of Shri D N Institute of PG Studies in Commerce, Anand
- Museum Management lecture and slide presentation for the students of Law Collage, Anand
- Museum Orientation lecture, slide presentation, documentary film on environment and guided tour was arranged for the students of CVM Fine Arts College, Vallabh Vidyanagar
- Museum Orientation lecture, slide presentation and a documentary film on environment was arranged for the students of Nalini Arvind Arts College, Vallabh Vidyanagar
- Preservation & Care of Paper Manuscripts and Books lecture, slide presentation and a documentary film on environment was arranged for the students of PG Department of Sanskrit, SPU, Vallabh Vidyanagar
- Relevance of Museum in Society an inaugural speech was delivered at one day National Workshop organized in collaboration with N S Patel Arts College, Anand on January 7, 2014

Outreach Activities

- Indo-British Coins of Museum's collection were given on educational loan to display at C P Patel & F H Shah Commerce College, Anand (January 6-10, 2014)
- Museum objects were displayed at N S Patel Arts College for the purpose of temporary exhibition during the collaborative National workshop on "History Museum : Relevance, Establishment and Management" (January 6-9, 2014)

Activity Reviews in Print Media

- Warli Painting Workshop" at Museum; Sandesh, Divya Bhaskar, Sardar Gurjari, Naya Padkar (January 9-30, 2013)
- Hands on Experience one day workshop for Trainee Teachers of Waymade College of Education, Vallabh Vidyanagar; Divya Bhaskar, Sardar Gurjari, Naya Padkar (June 28 – July 3, 2013)
- Museum Orientation Workshop one day workshop for 10 Faculty Members of GCET Engineering College, Vallabh Vidyanagar; Gujarat Samachar, Sardar Gurjari, Naya Padkar (June 29 – July 1 2013)
- Freedom Fighters and Reformers of India – *yaad inhe bhi kar lo* a Philatelic Exhibition; Divya Bhaskar, Sardar Gurjari, Naya Padkar (August 24 – September 24, 2013)
- Krishnaleela an exhibition of Indian Miniature Paintings and Pichhvais; Sandesh, Divya Bhaskar, Gujarat Samachar, Naya Padkar (January 6-8, 2014)
- History Museum: Relevance, Establishment and Management one day National Workshop in collaboration with Department of History, N S Patel Arts College, Anand; Sardar Gurjari, Naya Padkar (January 7, 2014)

Activity Reviews on Websites

Museum's event of 'Special Cover' release on the inaugural day of an exhibition was published on websites and blogs namely....

- www.spuvvn.edu
- www.indianstampghar.com
- www.philamorrer.info
- www.indianphilately.net
- www.gujaratphilately.com

- <http://rainbowstampclub.blogspot.com>

Activity Reviews News Letters and Magazine

The Museum's events were highlighted in....

- Shilashrutam; a monthly magazine published by Sardar Patel University
 - Issue 11, February-April 2013
 - Issue 1, July 2013
 - Issue 2, November 2013
 - Issue 4, January 2014
- Gujarat Philatelic Association; Issue 15, September 2013
- Anand Philatelic Association; Issue 4, September 2013

(D) University Health Centre

The University has a very good Health Centre, which was established in 1962. It has been recently renovated and updated. The main objective of the centre is to provide primary prevention against diseases, and to take care of routine health problems.

The Health Centre has an efficient and well-trained staff is as under:

Hon Medical officer	One-Temporary
Staff Nurse	One
Pharmacist cum Compounder	One
Assistant Compounder	One-Temporary
Lab Technician	One-Temporary
Lab Assistant	One-Temporary
Dresser cum Peon	One-Temporary
Sweeper	One
Sweeper	One-Temporary

Free medical check-up is carried out for the staff members and the students of the University and affiliated colleges. Free medication is also provided for general and common ailments.

University Health Centre carries out detailed evaluation of all aspects, for Hypertension and Diabetes Mellitus. It maintains separate files for all the enrolled patients. Regular check up, necessary investigation, counseling, health education, necessary advice and treatment are provided free of cost to all Hypertensive and other patients. Our medical officer attends and also makes presentations at National and International scientific conferences regularly to update the knowledge in Hypertension and Diabetes.

During Year 2012-13 We started a pathological laboratory and Provide free investigation Facility to our patients like CBC, Lipid profile, Liver function Tests, Kidney Function tests & Malaria and typhoid

The Health Centre provides necessary guidelines and treatment for hypertension and diabetes mellitus patients. Further it also organizes various check-up programs to rule out Diabetes Neuropathy, Diabetes Nephropathy, and Diabetes Retinopathy for all diabetes and hypertensive patients. The Centre screens all diabetes patients with the help of ophthalmologist on first Sunday of every month.

The Health Centre has the facility of Electrocardiogram (ECG) and IV Fluid Supplement to patients suffering from Cerebral Malaria, Typhoid, Dehydration due to Vomiting & Diarrhea etc. which obviates the necessity of referring the patients to other Hospitals for indoor expensive treatment.

Following consultants render their services regularly to the University Health Centre:

Dr Ravindra Parikh	:	Physician
Dr Nayana Patel	:	Gynecologist
Dr Anita Singh	:	Gynecologist
Dr Shyam Kumar	:	Ophthalmologist

The following describes statistically the services rendered by the University Health Centre 2013-2014

Sr No	Month	New	Old	Total	Student	Staff
1	April-2013	243	514	757	530	227
2	May-2013	166	420	586	391	195
3	June-2013	169	438	607	405	202
4	July-2013	765	656	1421	948	473
5	Aughust-2013	332	520	852	568	284
6	September-2013	397	555	952	635	317
7	October-2013	256	538	794	530	264
8	November-2013	194	293	487	325	162
9	December-2013	268	526	794	530	264
10	January-2014	344	516	860	574	286
11	February-2014	356	513	869	580	289
12	March-2014	297	472	769	513	256
	Total	3787	5961	9748	6529	3219

Total Patients during April-13 To March-14 =9748 New Patient During April-13 To March-14 =3787
Old patients during April-13 To March-14 =5961

Total Regular Patients having

Hypertension/ Diabetes / Thyroid / Asthma disease = 235

Total Expenditure Incurred for Medicine in the year 2013-14= 16,84,442/-

Total Expenditure Incurred for Lab/Chemicals in the year 2013-14= 96,675/-

(E) Guest House Accommodation

Details of Guest House accommodation available In 2013-2014

Sr No	Facility of Room	Rooms	Total Accommodation Capacity
1	New VIP (AC Room)	07	14 Bed
2	Old VIP (AC Room)	03	06 Bed
3	Semi VIP (AC Room)	06	12 Bed
4	Faculty Guest House (Non AC Room)	24	48 Bed
5	Dormitory (Non AC Common Room)	02	12 Bed

(E) University Staff Quarters Details House Accommodation

Details of staff quarters available in 2013-14

Sr No	Type of Quarters	No of Quarters
1	A	12
2	B	08
3	C	16
4	D	102
5	E	10
6	F	24
7	G	63
8	H	12
9	I	16
10	J	08

11	T	72
	Total	343

Additional Information:-

- (1) Water harvesting well constructed at Women's Hostel No :- 3 which harvested approximately 5.00 Lakh ltr. Water expenditure Rs. 2.45 Lakhs which helped to maintain water level in surrounding area resulting in saving of Electricity bill.
- (2) An underground tank constructed at Community Science Centre of 1000 ltr. Capacity at the expenditure of Rs. 42,000/- . This will create awareness to conserve water in tank during monsoon and utilize throughout the year free of cost.

(F) Community Radio Broadcasting Station (90.4 MHZ FM)

A Memorandum of Understanding (MoU) with the Prasar Bharati, All India Radio, New Delhi in March 2003 for establishing a low Power FM Radio Station on the Campus. The University received necessary clearance from Government of Gujarat, Ministry of HRD through University Grants Commission, Ministry of Communication and IT, Ministry of Defense, Home Ministry for the proposed Community Radio Station.

A 50W Transmission Power Community Radio Station, sanctioned with an operating frequency of 90.4 MHz in the FM band, through wireless and planning coordination wing of the Ministry of Communication and IT, has been established in the University campus, for expression and participation that values culture. Its coverage area is 8 sq. km in radius. Established at the Department of Electronics with their technical support, it has two acoustically treated sound proof studio rooms, one "Program Recording Studio" and another as a "On-Air-Cum-Program Production Studio" with all the sophisticated recording plus broadcasting facilities. The University has two-50W FM Transmitter, a Distribution Amplifier, 30 Meter Antenna Tower for On-Air Broadcasting. The University has four channels Stereo Multifunction Console, 18 Channel Digital Audio Work Station for Hard Disk Recording, Phone-In Program

The Programs are produced by the University Students / faculty members / administration staff / Local Community / Guest visiting of University. The station is broadcasting the programs from Monday to Friday (5 days in a week). Five daily transmission slots of an hour each and everything entirely in the students/ faculty domain: this station lives up to its name. The University's main focus is the Student Community. Their participation in radio station activity, both for program production as well as technical aspects, remove their fear and gives them hands on experience in FM Radio Technology.

[Total Five (5) Hours per day

Morning: 2 Hours

Afternoon: 2 Hours

Evening: 1 Hour

Total: 25 Hours in a week]

The daily program schedule of radio station covers Lectures, Debates, Panel Discussion, Traditional Songs, University News (like announcement of seminar, conference, university results, new events in university, etc. etc.), Cultural Programs, Health related programs, Institutional Profiles, Admission related information, Placement related information, Agricultural Information, information for surrounding rural area etc.

Two leading Musical Companies M/s Music Centre, Mota Bazaar, Vallabh Vidyanagar-388120 and M/s Soor Mandir, N H No 8, Mogar have given their Music right, "Free of Cost" to broadcast musical software from radio station. These software includes lok-geent, prarthana, bhajan, garba, Gujarati Sugam Sangeet etc. This will help to uplift local language also.

The community Radio station has helped preparing an Audio Book named “TATVAMACI” for blind people.

(G) Agro-Economic Research Centre

Head: Dr S S Kalamkar, Director and Professor

Ph No +91-2692-230106, 230799; Fax- +91-2692-230106

Email: director.aerc@gmail.com; directoraercgujarat@gmail.com

Faculty (AERC+CCS): Professor- 01; Associate Professor-01 and Assistant Professor -03

Total Sanctioned Staff Strength: 93 (AERC-15 + CCS- 78)

Courses Offered: Nil

Major Research Activities:

The Centre undertake the research projects on the important topics suggested/assigned by the Directorate of Economics and Statistics, Dept of Agriculture and Cooperation, Ministry of Agriculture, Government of India, New Delhi. Some of the research projects are undertaken by the Centre on the recommendation State Governments of Gujarat and Rajasthan as well as other public agencies. Since 1970, the Centre has been also organizing the work of *Comprehensive Scheme to Study Cost of Cultivation of Principal Crops in Gujarat* entrusted to University by the Ministry of Agriculture, Government of India. The data on cost of cultivation of selected eleven crops is being collected by field staff on regular basis from 600 selected farmers from eight agro-climatic zones of the State.

Major Achievements:

- Research Studies Completed for MoA, GOI: 152
- Research Studies Completed for Planning Commission, GoI: 04
- Special Cost Study for MoA, GoI: 01
- Village Surveys conducted: 21
- Village Resurveys conducted: 04
- Research Studies in Progress: 09
- Publications of the Centre: 11 (English) and 04 (Gujarati)
- Seminars, Conferences, Workshops Organized (jointly with PG Department of Economics, SPU, VVN) : 22
- Helped/supported more than 35 scholars of the University to successfully complete their Ph. D. work in agricultural economics
- Members of the faculty have been recognized at the State and National Levels.
- Research Projects in Progress: 09 (Nine)

The Agro-Economic Research Centre (AERC) for the states of Gujarat and Rajasthan was established in July 1961 at Sardar Patel University, Vallabh Vidyanagar by the Directorate of Economics and Statistics (DES), Ministry of Agriculture (MOA), Government of India (GOI), New Delhi. Late Shri H M Patel (ICS Retd) who provided the vision for establishing such an Institute and ensured the much needed support and encouragement for its growth at Vallabh Vidyanagar. AERC has been working as an associate institution of Sardar Patel University and enjoying autonomy status in its working. The Centre has completed 53 glorious years (1961-2014) of its journey marked by both achievements and challenges. During these years, the Centre has emerged as a strong policy feedback centre of the Ministry of Agriculture, Government of India due to hard work and strong commitment of the staff in the Centre. The focus of research effort in the initial stage was on comprehensive village surveys and resurveys in order to understand the process and direction of change at the village level. Subsequently, the emphasis of research has shifted to problem oriented studies. The Centre has by now completed 152 problem-oriented studies, 21 village surveys and 4 village resurveys. Most of these research projects have been taken up by Centre on the recommendation of the Government of India and State Governments of Gujarat and Rajasthan. Some of the projects have also been sponsored by other

national and international organizations. During its long journey, the Centre has brought remarkable improvement in every aspect of research including methodological base of the studies. The studies have come out with useful findings and policy implications for agricultural and rural development of the states of Gujarat and Rajasthan. Many seminars and conferences were organized by the Centre (jointly with PG Department of Economics of our University) during these years. Since 1970, the Centre has been also organizing the work of Comprehensive Scheme to Study Cost of Cultivation of Principal Crops in Gujarat entrusted to University by the Ministry of Agriculture, Government of India. Ever since its inception, the Centre has been working in close collaboration with the PG Department of Economics of our University and so far it has helped/supported more than 35 scholars to successfully complete their PhD work in agricultural economics.

The principle objectives of the Centre have been as follows:

- 1) To make continuous study of the change in rural economy by means of surveys of villages each year, to be repeated after an interval of five years.
- 2) To conduct ad-hoc investigation on problems of interest to the Ministry of Agriculture and Irrigation and the State Governments under their jurisdiction.
- 3) To undertake research on fundamental problems relating to the agricultural economy of the country
- 4) To give technical advice to the Government of India and to the State Governments on such important issues as, with mutual agreement, may be referred to the Centre.

A) Research Projects Completed

Sr No	Name of the Principal Investigator/ Co Investigator	Title	Funding Agency	Amount of Research Grant	Duration
1	Dr Mrutyunjay Swain	Problems and Prospects of Oilseeds Production in Gujarat: Special reference to Groundnut	Ministry of Agriculture, Govt of India, New Delhi	Above 5 lakhs	1½ yrs
2	Dr S S Kalamkar, Shri M R Ojha, and Shri T B Parihar	Evaluation of Price Support and Market Intervention Scheme in Rajasthan	Ministry of Agriculture, Govt of India, New Delhi	Above 5 lakhs	9 months
3	Shri V D Shah, Shri Manish Makwana	Marketed and Marketable Surplus of Major Foodgrains in Rajasthan”	Ministry of Agriculture, Govt of India, New Delhi	Above 5 lakhs	1½ yrs
4	Dr Rajeshree A Dutta, Shri Manish Makwana & Shri Himanshu Parmar	Assessment of Pre and Post Harvest Losses in Tur Crop in Gujarat”	Ministry of Agriculture, Govt of India, New Delhi	Above 5 lakhs	1½ yrs
5	Dr Rajeshree A Dutta, Shri Manish Makwana & Shri Himanshu Parmar	Assessment of Pre and Post Harvest Losses in Soyabean Crop in Rajasthan	Ministry of Agriculture, Govt of India, New Delhi	Above 5 lakhs	1½ yrs
6	Dr S S Kalamkar and Dr S R Bhaiya	Impact Evaluation of RKVY Programme in Gujarat and Rajasthan (only data on scheme)	ISEC, Bangalore (Ministry of Agriculture, Govt of India, New Delhi)	Above 5 Lakhs	6 months

B) Research Projects in Progress (As on 31 March 2014)

Sr No	Name of the Principal Investigator/ Co Investigator	Title	Funding Agency	Amount of Research Grant	Duration
1	Dr S S Kalamkar and Dr Sunil Kumar Singh	Relationship between Wholesale Prices, Retail Prices, and Details of contributing factors for the price difference of Onion in Gujarat	Ministry of Agriculture, Govt of India, New Delhi	Above 5 lakhs	1 yr
2	Dr Mrtunjay Swain and Dr S S Kalamkar	Adoption of recommended doses of fertilizer on soil test basis by farmers in Gujarat	Ministry of Agriculture, Govt of India, New Delhi	Above 5 lakhs	1 yr
3	Dr R A Dutta and Dr S S Kalamkar	Impact of National Food Security Mission (NFSM) on Input use, Production, Productivity and Income in Gujarat	Ministry of Agriculture, Govt of India, New Delhi	Above 5 lakhs	1 yr
4	Dr S S Kalamkar	Identifying Cooperatively Developed, Under Developed & Least Developed States/State wise Status of Cooperatives in India	Ministry of Agriculture, Govt of India, New Delhi	Above 5 lakhs	1 yr
5	Dr S S Kalamkar, Dr Mrutyunjay Swain & Dr S R Bhaiya	Estimation of Changes in Income and Cost of Production owing to Changes in Inputs and Hybrid Seeds for major Crops of Gujarat	Directorate of Economics and Statistics, Govt of Gujarat, Gandhinagar	Above 5 lakhs	6 months
6	Dr S S Kalamkar, Dr H P Trivedi, Dr S R Bhaiya & Dr D J Chauhan	Socio-Economic Impact of Check Dam constructed near Tarakpur Village of Khambhat Taluka of Anand district	Petlad Irrigation Department, Government of Gujarat, Petlad	Below 5 lakhs	6 months
7	Dr Mahesh Pathak; Dr S S Kalamkar & Shri V D Shah	Agro-Economic Research for Agriculture Policy: Gujarat and Rajasthan Experience (1961-2013)"	Ministry of Agriculture, Govt of India, New Delhi	Below 5 lakhs	6 months
8	Dr Mrutyunjay Swain	Status Report on 15 Major Indicators of Agricultural Performance in Gujarat and Rajasthan (Quarterly Reporting)	Ministry of Agriculture, Govt of India, New Delhi	Below 5 lakhs	1 year

C) List of Books and Research Articles Published During the year (2013-14)

Sr No	Author(s)	Title	Journal/ Book	International/ National/ Regional/ Local	Vol No & Issue No	Page No	Month & Year
(I) Research Papers							
1	Dr S S Kalamkar	Biotechnology in Indian Agriculture: Review of Adoption and Performance of Bt Cotton	Millennial Asia	International	Vol 4, No 2	221-236	December, 2013
2	Dr S S Kalamkar (with N V Shende and A M Athare)	Economic Aspects of Technology Adoption in Soybeans	The Asian Economic Review	National	Vol 55, No 1	99-112	April, 2013
3	Dr S S Kalamkar	Food and Nutrition Security in India	Indian Journal of Management Review	National	Special Issue	246-253	August 2013
4	Dr S S Kalamkar & G Pandya	Rainfed Agriculture in India: Issues & Challenges	Indian Economic Journal	National	Special Issue	13-48	December 2013
5	Dr P Princy & Dr S S Kalamkar	Social Impact of Interrupted Employment: An Empirical Analysis	Indian Economic Journal	National	Special Issue	37-66	December 2013
6	Dr S S Kalamkar (with S Shroff and J Kajale)	Emerging Retail Sector in Agricultural Marketing	Productivity	National	Vol 54 No 4	415-420	2014
7	Dr S S Kalamkar and Dr S Shroff	Assessing Policy Interventions in Agribusiness and Allied Sector Credit versus Credit plus Approach for Livelihood Promotion in Maharashtra (summary)	Indian Journal of Agricultural Economics	National	Vol 68, No 3	492	July Sept 2013
8	Dr S S Kalamkar	Agricultural Growth and Instability in Maharashtra: Trends and Determinants (Summary)	Agricultural Economics Research Review	National	Vol 26,	220	2013
9	Dr Mrutyunjay Swain	Problems and Prospects of Oilseeds Production in Rajasthan: Special Reference to Rapeseed-Mustard	Agricultural Situation in India	National	Vol 70, No 3	39-50	June 2013

Sr No	Author(s)	Title	Journal/ Book	International/ National/ Regional/ Local	Vol No & Issue No	Page No	Month & Year
10	Dr Mrutyunjay Swain	Impact of the National Horticulture Mission Scheme in Rajasthan	Artha Vikas	National	Vol 69, No 3	1-19	June 2013
11	Dr Mrutyunjay Swain	Role of Institutional Support System in Drought Management: Evidence from Bolangir District, Odisha” (summary)	Indian Journal of Agricultural Economics	National	Vol 68, No 3	---	July-September 2013
12	Dr S R Bhaiya (with John P Parmar)	Agricultural Constraints in Indian Economy: A Critical Aspect	SPET Research Journal of Social Sciences	National	Vol 2 No 2	176-186	2013
13	Dr S R Bhaiya (with John P Parmar)	Economic Impact on Area & Production of Groundnut of MSPs in Gujarat”	SPET Research Journal of Social Sciences	National	Vol 3 No 3,	49-54	2014
14	Shri Manish Makwana	Human Development Status in Gujarat”	Artha-Vikas	National	Vol 49, No 1	62-75	January-June, 2013
15	Shri Manish Makwana	Assessment of Marketed, Marketable Surplus and Post Harvest Losses of Major Food grains in Rajasthan	Vishleshan	National	39, No 2	26-42	July-December, 2013
16	Dr Mrutyunjay Swain	Sources of Growth and Instability in Agricultural Production in Western Odisha, India	Asian Journal of Agriculture and Development	International	Vol 3	--	(Forthcoming)
(II) Articles in Edited Book							
1	Dr S S Kalamkar	Food Security in South Asia	South Asia in the Globalised World	National	Edited Book	56-87	2014
2	Dr S S Kalamkar (with Dimple Tresa Abraham)	Micro-Enterprises of SHGs and Challenges to Continuity”	Microfinance and Microenterprise	International	Edited Book	153-162	August 2013

Sr No	Author(s)	Title	Journal/Book	International/National/Regional/Local	Vol No & Issue No	Page No	Month & Year
3	Dr S S Kalamkar	Agrarian Crisis and Food Security in India	Agrarian Crisis in India: The Way Out	National	Edited Book	235-282	2013
4	Dr S S Kalamkar	Water Resources Management in India	Water resources Development and Management: Challenges to Inclusive Growth	National	Edited Book, (Regal Publications, New Delhi)	1-27	2013
(III) Working Paper							
1	Dr S S Kalamkar, Shri M R Ojha and Shri T B Parihar	Price Support and Market Intervention Scheme in Rajasthan	AERC Working paper 2013/01	National	Working paper	1-40	Nov, 2013

D) Comprehensive Scheme to Study the Cost of Cultivation of Principal Crops in Gujarat

Studies on cost of production of agricultural commodities have been of interest to research workers and policy-makers. The need for reliable and representative estimates about cost of production of agricultural crops is obvious for formulating an appropriate strategy for planned agricultural development.

In a vast country like India with marked variations in agro-climatic conditions, it becomes essential to collect State-wise, region-wise data on cost of production of various crops on a continuous basis. Recognizing the importance of such studies, the Directorate of Economics and Statistics (DES), Ministry of Agriculture (MOA), Government of India (GOI), evolved a permanent arrangement for collection of cost of cultivation data on a continuous and uniform basis for all important crops in the country. The Directorate of Economics & Statistics decided to establish the Comprehensive Scheme for Studying the Cost of Cultivation of principal crops in different states of India in 1968-69. The Directorate entrusted one such cost scheme to the Sardar Patel University for collecting cost of cultivation data in Gujarat. The University entrusted this Scheme to the Agro-Economic Research Centre. Since 1970, the Agro Centre and the Comprehensive Scheme are working together in close collaboration for serving the needs of the Directorate of Economics and Statistics of MoA, Government of India.

The data base generated through the “Comprehensive Scheme for studying cost of cultivation of Principal Crops” is used not only for the primary purpose of providing cost estimates for determination of Minimum Support Prices (MSP) but for a wide variety of other important purposes like ‘Compilation of National Accounts Statistics’, Wholesale Price Indices (WPI) and research studies relating to cost of cultivation and farm income.

Up to 1982, cost of cultivation data in Gujarat were collected from 480 sample cultivators spread over 40 clusters of villages through cost accounting method. Under the old arrangement (known as single crop approach) the clusters were changed every year retaining only a sub-sample of 10 to 20 clusters. Since 1983, the single crop approach has been replaced by crop complex approach under which the numbers of clusters have been increased from 40 to 60 thereby providing a wider and varied base for generation of reliable estimates. Now eleven principal crops of Gujarat viz., paddy, bajra, maize,

mong, tur/arhar, groundnut, sesamum, cotton, wheat, rapeseed & mustard and onion are being studied continuously and simultaneously for three consecutive years in the same clusters of villages. At present, there is a sample of 600 cultivators (10 each from selected clusters) drawn from different size groups of holdings. The five size groups are: below 1.0 hectare, 1.0 to 2.0 hectare, 2.0 to 4.0 hectare, 4.0 to 6.0 hectare, 6.0 hectare and above.

The work of this Scheme is being looked after by 78 persons, of which 60 are permanently posted in the villages spread over entire State of Gujarat. This Scheme is being fully financed by the Government of India.

(E) Academic Programmes organised at the AER Centre (2013-2014)

AERC Foundation Day Lecture 2013: Dr Sudarshan Iyengar, Vice-Chancellor, Gujarat Vidyapeeth, Ahmedabad delivered Foundation Day Lecture 2013 on “Agro Economic Research Centres: Need to Introduce Fresh Agenda” on July 1, 2013.

Invited Guest Lecture/Talk Series:

Dr Tushaar Shah, Senior Fellow, International Water Management Institute (IWMI) delivered invited guest lecture/talk on “Shaping a Good Researcher: My Experience”, at the Centre on April 17, 2013.

Dr V S Vyas, Professor Emeritus, Institute of Development Studies, Jaipur and then Member, Economic Advisory Council to the Prime Minister delivered, GOI delivered invited guest lecture/talk on Shaping a Good Researcher: My Experience, at the Centre on March 13, 2014.

H M Patel Memorial Lecture 2013:

The H M Patel Memorial Lecture is instituted with the help of generous endowment grant given by Dr Mahesh Pathak (Hon Adviser, AERC). First H M Patel Memorial Lecture: Delivered by Shri Hasmukh Shah (Former Chairman & Managing Director, IPCL) on “Independent India: Good Governance-Aspirations & Reality” on February 7, 2014.

Faculty Seminars (2013-2014):

Price Support and Market Intervention Scheme in Rajasthan, by S S Kalamkar on June 26, 2013.

Problems and Prospects of Oilseeds Production in Rajasthan and Gujarat, by Mrutyunjay Swain, on July 30, 2013.

Marketed and Marketable Surplus of Major Food grains in Rajasthan, by Manish Makwana on August 21, 2013.

Structural Transformation in India: A Review, by T B Parihar and Himanshu Parmar on August 27, 2013.

Training Workshop to the Field Staff of CCS (June 2013): Centre organized two days training programme for the Technical/Field staff of Cost of Cultivation Scheme on June 30, 2013 and July 1, 2013. Shri T K Dutta, Adviser (CS Division) and Shri Chander Kant, Addl Economic Adviser (CS), Directorate of Economics and Statistics, Dept of Agriculture and Cooperation, Ministry of Agriculture, Government of India, New Delhi were the Chief Guests of this function.

(F) Faculty participation in national and international seminars, conferences, workshops, symposia, etc. (conference details with title of paper/poster presented/session chaired, etc.)

Dr S S Kalamkar, Director and Professor

Participated on invitation at the conference on Indian Agriculture titled, “the State, the Market and the Agripreneurs”, organized by the Indira Gandhi Institute of Development Research (IGIDR), Deemed University, Mumbai during April 3-5, 2013, as a part of the yearlong academic celebration of IGIDR’s silver jubilee.

Participated on invitation at the International Conference on ‘Microfinance and Micro-entrepreneurship: Issues and Challenges’ organized by Department of Economics, Bhagat Phool Singh Mahila Vishwavidyalaya, Sonapat (Haryana) in association with Banque Populaire Chair in Microfinance of the Burgundy School of Business, Dijon, France during August 08-09, 2013 and presented a paper on (jointly with Dimple Tresa Abraha) on “Micro Enterprises of SHGS and Challenges to Continuity”. Also acted as a Chairman of Technical Session IV-A on August 10, 2013.

Participated and delivered a lecture as a resource person on “Food and Nutrition Security in India” at the UGC sponsored National Seminar on ‘Challenges before Indian Economy’ organized by the Department of Economics and Commerce, Padmashri Vikhe Patil College of Arts, Science and Commerce, Pravaranagar, Dist. Ahmednagar, Maharashtra, on August 17-18, 2013. Also delivered the address as a Chief Guest of Valedictory Function of the Seminar.

Participated and presented a paper on “Agricultural Growth and Instability in Maharashtra: Trends and Determinants”, at the 26th National Conference of the Agricultural Economics Research Association (India), at Sher-e-Kashmir University of Agricultural Sciences & Technology of Kashmir, (SKUAST-K Shalimar), Srinagar, Kashmir during September 10-12, 2013.

Participated at the 27th National Conference of the Indian Society of Agricultural Marketing (ISAM), held at University of Agricultural Sciences, Dharwad 580 005 (Karnataka) during December 18-20, 2013 and presented a paper on “Evaluation of Price Support and Market Intervention Scheme in Rajasthan”, (co-author Shri Manish Ojha and Shri T B Parmar).

Participated at the 73rd Annual Conference of the Indian Society of Agricultural Economics, held at National Academy of Agricultural Research Management (NAARM), Hyderabad on December 19, 2013 and presented/discussed a paper on “Assessing Policy Interventions in Agribusiness and Allied Sector Credit versus Credit plus Approach for Livelihood Promotion in Maharashtra”.

Participated at the 96th Annual Conference of Indian Economic Association (IEA), held at Meenakshi University, Kanchipuram Chennai, Tamil Nadu during December 27-29, 2013 and presented the papers on “Rainfed Agriculture in India: Issues and Challenges” and “Social Impact of Interrupted Employment: An Empirical Analysis”. Also acted as a Co-Chairman of the Technical Session III on ‘Agricultural Growth in Indian Economy: Regional Experiences and Policies’ (Chairman-Prof G K Chaddha) of 96th Annual Conference of Indian Economic Association (IEA), held at Meenakshi University, Kanchipuram Chennai, Tamil Nadu during December 27-29, 2013.

Participated at the UGC sponsored National Seminar on “Rural Development in India: issues and Challenges”, organized by Post-Graduate Department of Economics, Sardar Patel University, Vallabh Vidyanagar during January 3-4, 2013 and presented papers on “Rural Credit for Globalizing farmers: Credit Plus Approach” (as a key paper) and “Performance of Agriculture Sector in Gujarat: Recent Experiences (with M N Swain and Kalpana Kapadia). Also acted as a Chairman of Technical Session III on Agriculture Sector of at the UGC sponsored National Seminar on “Rural Development in India: issues and Challenges”, organized by Post-Graduate Department of Economics, Sardar Patel University, Vallabh Vidyanagar during January 3-4, 2013

Acted as an External Expert for the Post Graduate Thesis Viva-voce examination in respect of MSc (Agri) student (Reg No 04-1621-2011) of Department of Agricultural Economics, B A College of Agriculture, Anand Agricultural University, Anand on October 10, 2013.

On invitation, acted as one of the external experts for assessment of academic writings of Faculty member (promotion) of Institute of Rural Management, Anand, July 2013.

Paper on “Social Impact of Interrupted Employment in a City” (jointly with Princy Yesudin) was accepted for discussion at International Geographical Union (IGU) Kyoto Regional Conference, held at Kyoto, Japan during August 4-9, 2013 (did not participate in the same).

Attended the PhD Viva-voce examination as a Principle Guide of Ms Dimple Tresa Abraham, PhD student registered at Gokhale Institute of Politics and Economics (Deemed University), Pune 411004 (Maharashtra), on October 15, 2013.

Completed PhD: Ms Dimple Tresa Abraham, PhD student registered at Gokhale Institute of Politics and Economics (Deemed University), Pune 411004 (Maharashtra)- October 2013.

Worked as a Referee and offered the comments on an article submitted for publication in ‘The Asian Journal of Agriculture and Development (AJAD), an internationally refereed publication of the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA) in October 2013.

Participated in the meeting of the Expert Committee for recommendations on Minimum Support Price for Rabi crops 2013-2014, on May 6, 2013 at the Office of the Directorate of Agriculture, Govt of Gujarat, Krishi Bhavan, Sector 10 A, Gandinagar (meeting scheduled at 2.00 pm.).

Participated and made presentation on “Cost of Cultivation Scheme in Gujarat” before the Second meeting before High Level Committee constituted by the Government of India under the Chairmanship of Dr Ramesh Chand, Director, National Centre for Agricultural Economics and Policy Research, New Delhi (having members from CACP, Farmers’ organizations, CS Division and others) in order to examine methodological issues in fixing Minimum Support Prices held at Room No 142, Jagdish Chandra Bose Hall, Krishi Bhavan, New Delhi (with Dr S R Bhaiyya).

Participated in the Two days National Workshop under the Cost of Cultivation Scheme organized by the CS Division, Directorate of Economics and Statistics, Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India, Krishi Bhawan, New Delhi at B C Krishi Vishwavidalya, Mohan Pur, Nadia, West Bengal during 12.9.2013 to 13.9.2013 and presented made a presentation on the work report and administrative issues on 13.09.2013.

Participated and presented a paper on “Food Security in India: Issues and Challenges”, at the one day Conference on ‘Food Security in India- Issues and Suggestions for Effectiveness’ at N S Patel Arts College, Anand on September 28, 2013.

Attended 2nd Dr Kurien Memorial lecture delivered by Professor V S Vyas on “Changing Counters of Rural India : Causes and Consequences”, at the second edition of the National Symposium on Rural Management, held at Institute of Rural Management, Anand during December 13 and 14, 2013.

Delivered the valedictory address at the National Seminar (under DRD II of UGC SAP) on Consumer Research in Rural Areas, organized by the Post Graduate Department of Business Administration, GH Patel Postgraduate Institute of Business Management (MBA Programme), Sardar Patel University, Vallabh Vidyanagar on January 25, 2014.

Acted as a Resource person and delivered three lectures at ICSSR sponsored Orientation Programme for the Research Scholars and Faculty Members belonging to SC and the Marginalized Group under SC Component Plan, organized by the Indian Institute of Education, Pune (Maharashtra) on February 13 and 14, 2014.

Delivered a key note address on “Water Harvesting and Groundwater Recharge in Gujarat”, at the 44th Annual Conference of Gujarat Economic Association (GEA), organized at M K College of Commerce, Bharuch, Gujarat on February 15, 2014.

Evaluated thesis and offered Expert Comments on MSc Thesis on “Comparative Economic Study of Green Chilli (*Capsicum Annum* L) Cultivation under Drip and Conventional Irrigation Methods in Middle Gujarat”, submitted to the Department of Agricultural Economics, NANAD Agriculture University, Anand, Gujarat, July 2013

Evaluated paper submitted to the Asian Journal of Agriculture and Rural Development” on “Sources of Growth and Instability in Agricultural Production in Western Odisha, India.

Evaluated three MSc Agricultural Economics thesis/theses received from Dr Panjarbao Deshmukh Krishi Vidyapeeth, Akola, Maharashtra in July 2013.

Evaluated Four PhD (Economics) thesis/theses received from University of Pune, Pune, Maharashtra in July 2013.

Worked as an Honorary Director, Cost of Cultivation Scheme- wef July 5, 2012- Administrative work.

Worked as a Public Information Officer, AERC, SPUniversity, Vallabh Vidyanagar since July 19, 2012.

Worked as a Public Information Officer, CCS, SPUniversity, Vallabh Vidyanagar since July 19, 2012.

Worked as a Member, Advisory Committee, HMPatel Memorial Lecture Series, Sardar Patel University, Vallabh Vidyanagar since November 12, 2013.

Worked as member of Editorial Board of “International Journal of Social Science”, (ISSN 2249-6637), Visva-Bharati Shantiniketan, published from New Delhi Publishers, New Delhi

Worked as a State/Regional Representative of the Indian Society of Agriculture Marketing for the Maharashtra State.

Dr Mrutyunjay Swain, Research Officer/Assistant Professor:

Completed the Orientation Programme organized by UGC Academic Staff College, Sardar Patel University, Vallabh Vidyanagar held from 6th May 2013 to 2nd June 2013, sponsored by UGC, New Delhi with A grade.

A paper on “Performance of Agriculture in Gujarat: Recent Experiences: presented in the UGC Sponsored National Seminar on Rural Development in India: Issues and Challenges held at PG Department of Economics, SPUniversity, Vallabh Vidyanagar, Gujarat on January 3 & 4, 2014.

A paper on “Role of Institutional Support System in Drought Management: Evidence from Western Odisha”, presented at 73rd Annual Conference of Indian Society of Agricultural Economics held at NAARM, Hyderabad on December 18-20, 2013.

A paper on “Role of MGNREGA in Rural Transformation: Lessons and Challenges for Rural Managers” presented in the 2nd National Symposium on Rural Management to be held in Institute of Rural Management Anand (IRMA) on December 13 and 14, 2013

A paper on “Effects of Institutional Safety nets on Households’ Resilience: The Case of Drought Risk Management in Bolangir District, Odisha’ presented at Fourth National Research Conference on Climate Change, jointly organized by CSE, New Delhi, IIT, New Delhi, IIT Madras and IISc, Bangalore, held at IIT Madras on October 26-27, 2013.

A paper on “Role of MGNREGA in Promoting Food Security in Rural Rajasthan”, presented at the Prelude Conference on Food Security in India jointly organized by Indian Institute of Public Administration, Local Branch, VV Nagar and Department of Master of Public Administration, NS Patel Arts College, Anand held at NS Patel Arts College, Anand on September 28, 2013.

A paper on “Impacts of MGNREGA on Financial Inclusion in Rural Rajasthan, India” presented at 2nd International Workshop on Inclusive Finance held at XLRI Jamshedpur on September 13-15, 2013.

A paper on “Problems and Prospects of Oilseeds Production in Rajasthan and Gujarat” presented at the Faculty Seminar Series at Agro Economic Research Centre, Sardar Patel University, Vallabh Vidyanagar on 30th July 2013.

Dr S R Bhaiya, Field Officer:

Participated at the UGC Sponsored seminar on “Rural Development in India: Issues and Challenges”, organized by P G Department of Economics, Sardar Patel University, Vallabh Vidyanagar, Gujarat, dated January 3-4, 2013 and presented a paper on “An Irrigation Development for Gujarat Agriculture: Issues and Challenges”.

Participated at 44nd Annual Gujarat Economic Conference organized by M K College of Commerce Bharuch, dated February 14-16 – 2014 and presented a paper on “An Economic Impact of Irrigation on Agriculture in Gujarat and the Constraints”.

Participated in National Workshop on Comprehensive Scheme for Studying the Cost of Cultivation of Principal Crops in India held on 12th – 13th September, 2013 at Bidhan Chandra Krishi Vishwavidyala (BCKV), Kalyani, Nadia, West Bengal.

(G) Staff Representation in Professional Bodies, Fellowship and Recognition:**Dr S S Kalamkar, Director and Professor**

- Indian Society of Agricultural Economics (ISAE), Mumbai (Life Member)
- Indian Society of Agricultural Marketing (ISAM), Nagpur (Life Member)
- The Indian Economic Association (IEA), New Delhi (Life Member)
- Agricultural Economic Research Association (AERA), New Delhi (Life Member)
- Maharashtra Society of Agricultural Economics (MSAE), Pune (Life Member)
- Economic & Political Weekly Research Foundation (EPWRF), Mumbai (Annual Member),
- Association of Asian Scholars (AAS), New Delhi (Associate Membership)
- Indian Society of Agricultural Development And Policy, Ludhiana (Life Member)
- Indian Society for Studies in Cooperation- Life Member

Dr Mrutyunjay Swain, Research Officer/ Assistant Professor

- Member of Academic Council, Institute of Management and Development Action, Indore
- Member of the Editorial Board, Sustainable Agriculture Research, an international journal published by Canadian Center of Science and Education, Toronto.
- Honorary Guest Faculty (Economics and Business Statistics), R N Patel Ipcowala College of Law and Justice (An affiliated College of SP University), Vallabh Vidyanagar, 2013
- External Member of Internal Quality Assurance Cell (IQAC), R N Patel Ipcowala College of Law and Justice (An affiliated College of SP University), Vallabh Vidyanagar, 2013
- Life Member, Indian Society Agricultural Economics
- Life Member, Indian Economic Association
- Member, South Asian Network for Development and Environment Economics
- Member, Indian Climate Research Network

(H) Research Support Services at the Agro-Economic Research Centre

Recognizing the importance of library, seminar hall and computer support for academic activities of the faculty and staff, we upgraded both these support systems.

(i) Library: The Centre has a separate library of its own containing book and journal specifically on Economics, Agricultural Economics and Rural Development. Many journals, magazines and research reports of different Agro-Economic Research Center's as well as known institutes are regularly arriving in our library. Apart from AERC and CCS research staff, this also helps the PG students of Department of Economics and other researchers to carry out their research smoothly and effectively particularly in the field of agriculture and rural development. During the academic year 2013-14, the library has subscribed 16 periodicals/ journals/ magazines and purchased 82 books (related to economics and rural development). The library has also subscribed to the online data services such as www.indiastat.com and www.epwrf.res.in. The library conducted book exhibition on December 24

and 25, 2013. During last one year or so, the library facilities have been upgraded and automation is in advanced stage to scan all AERC reports.

(ii) Computer Centre: The Computer Centre housed in the Cost of Cultivation Scheme, AERC is well-equipped with hardware and software to support the research and training programmes of the Centre. In the computer laboratory, staff has access to the internet both for reference work and communication.

(iii) Seminar Hall: The Centre has a modern well equipped Seminar Hall of capacity 80 person for various academic purposes. This was inaugurated by the Vice Chancellor Dr Harish Padh on 28th January 2013.

(H) Hostels

Details of rector, superintendent, rooms capacity, total students, and other facilities of Six Hostels of the University

Sr No	Name of Hostel	Name of the Rector	Name of the Superintendents	Total Room	Students Capacity	Total Students Staying In 13-14	Other Facility
1	Old Men's Hostel No 1	Dr B B Agja	Dr DG Patel	78	148	52	With Mess
2	Nehru Hall Men's Hostel No2	Dr A S Reddy	Shri Jayantbhai Mecwan	95	198	210	With Mess
3	BSc BEd Hostel	Dr N R Patel	Shri R M Patel	23	66	-	--
4	CTE Hostel	Dr N R Patel	Shri R M Patel	27	60	22	--
5	University Women's Hostel	Dr Urmilaben H Patel	Smt Kapilaben Mistry, Assist Warden	102	318	333	With Mess
6	University Women's (NRI) Hostel	Dr Urmilaben H Patel	Smt Kapilaben Mistry, Assist Warden	30	60	62	--
7	MBA (NRI) Hostel	Dr R P Patel	Mr K S Prasad	26	52	46	--

(I) Sports Facilities and Gymnasium

Sports Facilities and Gymnasium

The University has developed its own playground on 15 Acres land. The following facilities are available on this new playground.

1	Basket-Ball court with flood lights	:	2
2	Volley-Ball Ground	:	2
3	Kabbadi Ground	:	2
4	Kho-Kho Ground	:	2
5	Hand-Ball Ground	:	1
6	400 Meters Athletic Track	:	1
7	Foot Ball Ground (Within the track)	:	1
8	Cricket Ground (Within the track)	:	1

9	Tennis Court (Cement Court)	:	1
10	Table Tennis Hall (Indoor for one table)	:	1

The university has constructed a new multipurpose Gymnasium hall. Which has facilities of two badminton court, court of table tennis, basketball, volleyball, handball, Kabaddi, Kho-Kho?

FOR SPORTS ACTIVITY PLEASE REFER TO CHAPTER – V.

(J) University Press

The University Press is an auxiliary service unit of Sardar Patel University, established to cater to the printing needs of the University. Fifteen employees are working in the different sections of the press like, computer unit, plate making unit, offset printing unit and binding unit. The press is now equipped with A3 size colour laser printer, can print small run certificates, fliers, invitation, posters, visiting cards, etc at once. The University Press has an examination unit, which comprises data entry computer unit, proof reading hall, photocopying/printing unit and block-wise bundling room. All the question papers are printed in the secured environment unit under closed circuit TV camera surveillance. The press also prints routine stationery for the University office administration and departments, the monthly University newsletter, and the University journals, admission information booklet and application forms as well as PhD thesis and research publications under various UGC schemes.

4.4 Infrastructure in Postgraduate Departments

(1) DEPARTMENT OF BIOSCIENCES

- 1 Phase contrast microscope (American Optics)
- 2 Photomicroscope (Carl- Zeiss)
- 3 Fluorescence microscope (Carl-Zeiss)
- 4 MPM 400 Photo Metry, KS 3000 Image Analyzer (Carl Zeiss)
- 5 Gas Chromatographs (Sigma, Chemito)
- 6 HPLC (Agilent)
- 7 HPTLC (Camag)
- 8 FPLC (Biorad)
- 9 TOC & TN analyzer (Shimadzu)
- 10 Elisa plate reader (UV-Visible) (Microdevices)
- 11 2-D Gel electrophoresis unit with Isoelectric focusing facility (Biorad)
- 12 UV visible spectrophotometers (Heawlett– Packard, Unicam Beckman, Systronic)
- 13 Atomic absorption spectrophotometer (Analytic Jena)
- 14 Fermentor (New Brunswick)
- 15 Lyophiliser (FTS)
- 16 Themocycler (Eppendorf)
- 17 Gel documentation system – Gene line
- 18 Deep Freeze (-86° C) (Sanyo)
- 19 Ultramicrotome (Reichert)
- 20 Cryocut (leica)
- 21 Hybridization Oven
- 22 UV-Cross linker
- 23 Gas-Chromatograph System
- 24 Computer Laboratory with internet facility
- 25 Departmental library
- 26 Tissue culture laboratory
- 27 Animal house
- 28 Botanical garden
- 29 Herbarium
- 30 Phytoresource centre
- 31 Zoological museum

(2) DEPARTMENT OF CHEMISTRY

- 1 Differential Scanning Calorimeter (DSC) Make: TA Instruments, USA Model: 2920 DSC/TA 5000
- 2 Thermo gravimetric Analyser & Differential Thermal Analysis (TGA / DTA) Make: TA Instruments, USA Model: 2960 Sdt/Ta5000
- 3 Infrared Spectrophotometer (FT-IR) Make: NICOLET, USA Model: Impact 400 D
- 4 UV-VIS Spectrophotometer Make: Shimadzu, Japan Model: Uv-160a
- 5 High Pressure Liquid Chromatography / Gel Permeation Chromatography (HPLC/ GPC) Make: Waters, USA Model: Waters 600 E (Controller) Waters 991-Pda Waters 470 Scanning Fluorescence Detector Waters 410 Differential Refractor Meter
- 6 Soxhlet Extraction Apparatus
- 7 Vapour Pressure Osmometer Make: Knauer, W Germany Model: K7000
- 8 Thermal Stability Tester
- 9 Chno-Elemental Analyzer Make: Heraeus. W Germany Model: Chn-O Rapid
- 10 Instron Universal Testing Machine Make: Instron Utm, Uk Model: Table – III
- 11 Heat Deflection Temperature (Hdt) And Vicat Softening Point (VSP) Make: Cast, Italy Model: 6505/000
- 12 Pendulum Impact Tester Make: Zwic, Italy Model: 1501
- 13 Laser Refract meter Make: Wyatt Tech., USA Model: Dawn Eos
- 14 Vibrating Sample Magnetometer (VSM) Make: Lakeshore, USA Model: VSM 7304
- 15 Polarographs Make: ELICO, India Model: CI-90
- 16 Melt Flow Indexer
 - (a) Flash & Fire Point Tester (Clave And Open Cup)
 - (b) Flash Point By Pensky-Martens Closed Cup
- 17 Smoke Point Apparatus
- 18 Flammability Tester
- 19 Cloud and Pour Point Tester
- 20 Aniline Point Apparatus
- 21 Distillation Apparatus
- 22 Needle and Cone Electrometer
- 23 Specific Gravity Balance
- 24 Carbon Residue By Rams bottom Method
- 25 Redwood And Say bolt Viscometer
- 26 Brookfield Viscometer Make: Brook Field, USA Model: DV-II
- 27 Brabender Plasticorder Make: Brabernder Organization, W Germany Model: PLE 651
 - (a) Brinell Hardness Tester Make: Hungary Model: AS-111
 - (b) Shore –A Hardness Meter
- 28 Air Circulating Oven
- 29 Muffle Furnace
- 30 Compression Set Tester
- 31 Ubbelhode Viscometer
- 32 Din Abrasion Tester Khushboo, Mumbai
- 33 Falling Dart Impact Tester Khushboo, Mumbai
- 34 Adhesion Tester Khushboo, Mumbai
- 35 Vibrating Sample Magnetometer, VSM-7304, 2002
- 36 AV-400 Mhz FTNMR, 2006
- 37 PL-GPC 220 Gel Permeation Chromatograph, 2006
- 38 TRITEC 2000B DMA (Dynamic Mechanical Analyzer), 2006
- 39 Atomic Force Microscopy Veeco-cpii, 2006
- 40 Electro Chemical system, Solartron 12608W+1246, 2006
- 41 UV-VIS spectrophotometer, Shimadzu – 2 Nos. , 1996 and 2010
- 42 FTIR Spectrophotometer, MB3000, 2010

- 43 6517A/E Electrometer, Keithley, 2006
- 44 Universal Testing machine, LLOYD, 2006
- 45 Zwic Pendulum impact Tester, 1996
- 46 HDT-VICAT tester, 1990
- 47 Water analysis kit, HACH, 2002
- 48 Dawn EOS Multi Angle light Scattering Detector, Waters HPLC & GPC System & Viscotek LR40 Detector, 2000
- 49 Molecular Modelling Software, 2006
- 50 Vapour pressure Ohmmeter, 1999
- 51 DSA 5000M Density and Sound Velocity Meter, 2012
- 52 CHNO-S Analyzer, 2013
- 53 TGA-DSC Thermal Analyzer , 2013
- 54 Finoresconce Spectrophotometer , 2013
- 55 Computer Cluster Laboratory , 2013

(3) DEPARTMENT OF COMPUTER SCIENCE AND TECHNOLOGY

- 1 IBM X-Series 225 [Server Machine]
- 2 Compaq ML530 [Server Machine]
- 3 Compaq Alpha DS10 [Server Machine]
- 4 Sun Ultra 10 [Server Machine]
- 5 HP Net Server E60 [Server Machine]
- 6 Compaq ML330e [Server Machine]
- 7 High-end Graphics Workstation from HP
- 8 IBiostation software package bundle
- 9 EDUSAT satellite receiving equipment set for the College to Career programme
- 10 All popular operating systems, including compilers as well as development software packages
- 11 Purchase of 12 HCL desktops , August 2013
- 12 Purchase of 25 Acer I5 desktops , December 2013
- 13 Purchase of Apple MacBook Pro , March 2014

(4) DEPARTMENT OF ELECTRONICS

- 1 Vacuum Coating Unit with Electron Beam Gun – 3 KW (Hind High Vacuum Ltd Make 15", Model 15F64) (1 No.)
- 2 Vacuum Coating Unit with LN & DT (Hind High Vacuum Ltd. Make, Model 12A4D) (1 No.)
- 3 Vacuum coating Unit (USIC Make) (2 Nos.)
- 4 Multi Channel ISE/Ph/mV/ORT/Temp Bench Top Meter (Orion Make, 9201) (1 No.)
- 5 Precision LCR Meter (Agilent Make, 4284A) (1 No.)
- 6 Digital Image Processing Hardware & Software (Colour CCD Camera Colour Frame Grabber Card) (1 No.)
- 7 Process Controller Trainer with Temperature and Liquid Level (Apex Engineering Make) (1 No.)
- 8 Laminar Flow work Station (Kirloskar Make) (1 No.)
- 9 Fibre Optic Communication System (Benchmark Make) (2 Nos.)
- 10 Digital Communication System (Feedback Make, DCS – 297) (1 No.)
- 11 Antenna Trainer (Sciencetech Make, ST 2261) (1 No.)
- 12 Total Rework Station (Hakko Make, 720B) (1 No.)
- 13 PCB Inspection System (Matey Make, SL – 60) (1 No.)
- 14 PCB Drilling / Shearing / Etching Machine / Photo Resist / Dip Coating / Dye Developer (Crescent Make)
- 15 Digital Communication Training System (Falcon Make) (1 No.)
- 16 Programmable Logic Controller (PLC) (Ansuman Make, XPO PLC)

- 17 Logic Scope (20 MHz) (Scientific Make, 201 LS) (1 No.)
- 18 Digital Storage Oscilloscope (Scientific Make, HM – 202 – 2) (1 No.)
- 19 Handy Scope (ADSO) (Hameg Make) (1 No.)
- 20 Programmable Power Supply (Hameg Make, HM – 7044) (2 Nos.)
- 21 Logic Analyzer (Promex Make, AL – 320) (1 No.)
- 22 Power Scope (International Make, TE – 9) (1 No.)
- 23 Multifunction Universal system (Motwane Make, MS9160) (2 Nos.)
- 24 LCD Multi Media Projector (Toshiba & Philips Make) (2 Nos.)
- 25 Computer System with UPS and Printer (10 Nos.)

(5) DEPARTMENT OF HOME SCIENCE

- 1 HPLC, GLC, Fermentor, UV visible spectrophotometer, Fluorimeter etc.
- 2 Major and minor equipments such as Electronic balance
- 3 High Speed Refrigerated Micro Centrifuge
- 4 Refrigerated Incubator Shaker
- 5 Bacteriological incubator
- 6 Muffle furnace
- 7 Fluoride pttmeter (orion make)
- 8 Flame photometer
- 9 Laminar Air flow
- 10 Digital spectrophotometer
- 11 Transilluminator
- 12 Autoclave
- 13 Hot air oven
- 14 Lyophiliser
- 15 Refrigerator
- 16 BOD Incubator
- 17 Microscopes
- 18 Tensile tester
- 19 Dress forms (Dummies)
- 20 Twist Tester (Hand operated)
- 21 Tearing Strength Tester
- 22 Padding mangal - Hand Operated
- 23 Crease recovery tester
- 24 Washing machine
- 25 Computers (11)
- 26 Printers (10)
- 27 Scanner (2)
- 28 Copier Machine etc.

In all the instruments in the department number around 400 approximately

(6) DEPARTMENT OF MATERIALS SCIENCE

- 1 Scanning Electron Microscope Hitachi S-3000N
- 2 Renishaw in Via Raman Microscope
- 3 Mettler Thermal Analysis System TA 4000 up to 1000oC and 1600oC
- 4 Micromeritics ASAP 2020 Surface Area and Porosity Analyzer
- 5 Micromeritics Gemini BET Surface Analysis System
- 6 Instron Universal Testing Machine 5500
- 7 Shimadzu UV-Visible Spectrophotometer
- 8 Shimadzu FTIR 8300 Spectrophotometer
- 9 Systronics Flame Photometer
- 10 Leitz Optical Microscope Metloplan 12POLs
- 11 Digital Rockwell Hardness Tester (TRSDM)
- 12 Particle Size Analyzer
- 13 Laboratory scale spray drier

- 14 Gas Chromatograph, Sigma
- 15 Mettler Toledo Densitometer
- 16 Dynisco Mini mix Extruder
- 17 Hot Isotatic Pressing
- 18 LEICA DFC 300FX Image Analyzer
- 19 Thin Film Coating Unit
- 20 Carbonisation and Activation furnaces
- 21 Heat treatment Furnaces up to 1000oC, 1750oC and 2500oC
- 22 Impregnation Chamber
- 23 Machine shop for sample preparation, polisher, sieve analysis, surface grinder etc
- 24 Facilities for development of inorganic and hybrid gels: Stirrers, Drying Ovens,
- 25 Facilities for development of model fiber reinforced composites: Filament winding, prepregging, moulds and Hydraulic press etc.

(7) DEPARTMENT OF MATHEMATICS

(a) Departmental Mathematics Library

- 1 NBHM Regional Library earning annual grant of ₹ 32 Lakh
- 2 Total Library Grants earned so far around ₹ 2.7 crores
- 3 Number of National/International Journals subscribed: 46
- 4 Number of users (excluding the department staff and students): 70
- 5 Approximate number of books in the library 7000
- 6 Back volumes of the journals: since 1971
- 7 Internet connectivity made available to the users
- 8 INFLIBNET available on 25 computers
- 9 Photocopying Facility: made available to users

(b) Computer Laboratory

- 1 Around 60 networked computer systems
- 2 Mathematica 3.0
- 3 MACSYMA
- 4 LaTeX
- 5 MatLab

(c) TV, VCR, Audio System, Amplifier, MM Projector, Interactive board, Telescope, Slide projector, OHP, Camera

(8) DEPARTMENT OF PHYSICS

- 1 Hall Measuring Assembly 'Lake Shore'.
- 2 'Seifert' Highly stabilized X-ray generator.
- 3 'Hind Hivac' vaccume box coater BC 300.
- 4 Trinocular upright metallurgical Microscope model AXIOTECH, Carl Zeiss make.
- 5 'Agni' high temperature furnace (1700 C).
- 6 Variable temperature compact optical closed cycle cryogenic refrigerator system.
- 7 Microprocessor controlled freeze-drier with accessories-Lipholiser.
- 8 'Sigma' 2k Centrifuge.
- 9 Getener trinocular IC2000M microscope with CCTV system.
- 10 Multimedia projector.
- 11 'HP' LCR meter.
- 12 Computer system with necessary accessories.
- 13 Hydraulic compression testing machine.
- 14 Potentiostatic/ Galvenostatic system.
- 15 Green Laser Source.
- 16 Optical microscope with long working distance.
- 17 Optical absorption measurement setup for high-pressure measurements using DAC.
- 18 Vibration Isolation system, Honeycomb structure, SANDVIC make (for mounting High Pressure absorption measurement set-up).

(9) DEPARTMENT OF STATISTICS

- 1 Well established computer lab with around 30 computers
- 2 Statistical software SPSS

(10) DEPARTMENT OF PHARMACEUTICAL SCIENCE

- 1 FTIR spectrophotometer
- 2 Spectrofluorometer
- 3 HPTLC
- 4 UV Visible Spectrophotometer UV-1800
- 5 Fluidized Bed Dryer
- 6 Disintegration tester
- 7 Dissolution Tester with accessories
- 8 Diffusion Cell Apparatus
- 9 Lyophilizer
- 10 HPLC System with PDA detector
- 11 Fluidized Bed Dryer
- 12 Spray Dryer
- 13 Deep freezer (-10 to -40 deg C)
- 14 High Speed Homogenizer with spare homogenizing cup with rod
- 15 UltraSonicator
- 16 Drying Chamber with tray
- 17 Electromagnetic stirrer 1liter
- 18 General Purpose Lab Centrifuge
- 19 High speed Centrifuge with accessories
- 20 High speed emulsifier
- 21 Handmade Tablet Machine
- 22 Hot air oven
- 23 Magnetic stirrer with hot plate 1liter
- 24 Magnetic stirrer with hot plate 2 liter
- 25 Medium duty stirrer
- 26 Mini stirrer
- 27 Tablet hardness tester Monsanto type
- 28 Tablet hardness tester pfizer type
- 29 Vaccume pump
- 30 Vertical autoclave with foot lifting arrangement
- 31 Water bath Shaker
- 32 Rotary Flask Evaporator
- 33 Microprocessor based Digital Tablet Friability Test Apparatus with double beam
- 34 Tablet Coating Machine
- 35 Capsule filling Machine
- 36 Double walled water bath thermostatic
- 37 Hot air oven
- 38 Magnetic stirrer with hot plate 1liter
- 39 Magnetic stirrer with hot plate 2 liter
- 40 Micro controller Flame photometer
- 41 Mini stirrer
- 42 Rotamantle

- 43 Vacuum oven
- 44 Vacuum pump
- 45 Vortex shaker
- 46 Water still
- 47 pH meter
- 48 Quartz Double Distill water assembly
- 49 Muffle Furnace
- 50 Ball Mill
- 51 SI234DE Weigh balance(2300gm/0.1mG)
- 52 TB215DDE Weigh balance(60gm/210gm)
- 53 Ultrasonic Bath Capacity:5liter
- 54 Water bath constant temprature
- 55 Double walled water bath thermostatic
- 56 Research Centrifuge
- 57 Lyophilizer, 18/06/2013
- 58 Fluidized Bed Dryer, 08/07/13
- 59 Spray Dryer, 30/09/2013
- 60 FTIR, 17/02/2014
- 61 Flame Photometer, 26/02/2014
- 62 SpectroFlurometer, 26/02/2014
- 63 Autoclave, 03/03/14

(11) DEPARTMENT OF CENTER FOR INTERDISCIPLINARY STUDIES IN SCIENCE & TECHNOLOGY (CISST)

- 1 Ultra Fast Triple Quardupole Liquid Chromatography and Mass Spectrometer
- 2 Spectrofluorophotometer, Model: RF-5301PC, Make: Shimadzu, Japan
- 3 Inverted Fluorescent Phase Contrast Research Microscope, Make: Carl-Zeiss, Germany
- 4 Research Rotatory and Oscillatory Rheometer
- 5 Millipore Water Purification System
- 6 Isothermal Titration Calorimeter
- 7 High Performance Particle Size Analyzer along with Zeta Potential Measuring System
- 8 Size Exclusion Chromatograph for Static light scattering unit
- 9 Fluorescence Micro-plate Reader
- 10 Complete DC I-V, C-V Semiconductor Characterization System
- 11 Cold storage - Freezer (-800 C), 300 Lts.
- 12 Real Time PCR
- 13 Inductive Coupled Plasma Mass Spectrometry

(12) DEPARTMENT OF BUSINESS ADMINISTRATION (MBA)

- 1 Well established computer lab with around 30 computers
- 2 Statistical software SPSS
- 3 Other software
- 4 Digital Camera
- 5 Video Camera
- 6 TV Set
- 7 VCR
- 8 Multimedia Projectors

- 9 Scanner (Epson V33), 2014
- 10 AC-24 - BLUE STAR 5 * (5 No's), 2013

(13) DEPARTMENT OF ENGLISH

- 1 Library of Sounds
- 2 Language Laboratory
- 3 Recording Laboratory

(14) DEPARTMENT OF HINDI

- 1 Passenger-Vehicle (Matador)-01
- 2 Video-Camera-01, Ordinary Camera-o1
- 3 Tape-Recorders-02, OHP-01, Sound-System
- 4 LP Records, A/V Cassettes
- 5 Computer-Set
- 6 Stage-Lights
- 7 Dimmer-States, Stage-Property
- 8 TV Set, VCR

(15) DEPARTMENT OF BUSINESS STUDIES

- 1 Computers - 10, 22/10/2013
- 2 LCD Projector – 01, 06/10/2013
- 3 Printers – 04 (01 Printer Three in one), 26/01/2013
- 4 UPS - 10, 22/10/2013
- 5 Wireless Presenter with in-built Laser Pointer, 06/10/2013

(16) DEPARTMENT OF ECONOMICS

- 1 Printer HP laser Jet 07 No, 29/08/2013
- 2 Printer and Scanner (All in one) 03 No, 06/09/2013
- 3 Computer and Desktop D4 with (18.5'') 24 No, 06/09/2013
- 4 Scanner HP Scan Jet G 2410 05 No, 13/08/2013

(17) DEPARTMENT OF LIBRARY & INFORMATION SCIENCE

- 1 Digital Lab/Two Digital Scanners, 15 Computers, Digitization Project during the year
- 2 Computer Lab With 20 Computers , Practical Training of Library Mgt Software & Digitization Software

(18) DEPARTMENT OF LIBRARY & INFORMATION SCIENCE

- 1 OHP
- 2 LCD
- 3 Computers with Internet connectivity

4.5 New Civil Work in Progress/Completed in the Year 2013-2014

Sr No	Particulars	Cost (₹)	Status
1	Construction of Womens' Hostel No : 3	2,14,15,536.00	Completed
2	Renovation Work of Economic Department	12,83,348.00	Completed
3	Campus Development	61,37,507.00	Completed
4	Furniture Work for Womens' Hostel No : 3	14,19,532.00	Completed
5	Extension of Community Science Centre	19,33,539.00	Completed
6	Extension of Chemistry Department 2 nd Floor	12,06,679.00	Completed
7	Civil Work of Pursu Programme Phase-I	14,10,712.00	Completed
8	Renovation Work of Home-science Department	5,67,041.00	Completed
9	Renovation Work of Bhaikaka Library 1 st Floor	5,37,089.00	Completed
10	Renovation of Bio-Sciences Campus Canteen	1,64,539.00	Completed
11	Furniture Work for Eklavya Hostel	33,89,553.00	Completed

12	Civil Work of Purse Programme Phase-II	7,70,157.00	Completed
13	Construction of Gymnasium Hall	5.32 Crore	Completed
14	Extension work of Computer Centre	15,49,505.00	Completed
15	Renovation work for Women's Hostel 1 & 2	4,79,767.00	Completed
16	Renovation work of Central Hall No : 13 for M B Patel College of Education	4,17,836.00	Completed
17	Solar Water Harvesting System for Women's Hostel No : 3	4,03,591.00	Completed
18	Solar Water Harvesting System for CTE Hostel	2,45,436.00	Completed
19	Solar Water Harvesting System for Men's Hostel	2,69,247.00	Completed

Electrical Work in Progress/Completed in the Year 2013-14

Sr No	Particulars	Cost (₹)	Status
1	Electrification for Extended Portion of Mathematics Department (2 nd Floor-West Side)	1.81 Lakh	Completed
2	Re-electrification of M B Patel Education College	14.65 Lakh	Completed
3	Supply, Installation, Testing & Commissioning of Power Panel & Cable Laying of D G Sets (Gyanodaya Bhavan, University Press, M P Patel Auditorium Hall & G H Patel Computer Centre)	9.70 Lakh	Completed
4	Electrification for Providing Power Plug & renovation of Power Distribution System at Nehru Hall	3.42 Lakh	Completed
5	Supply, Installation, Testing & Commissioning of Power Panel & Cable Laying of D G Sets for Bhaikaka Library	2.37 Lakh	Completed
6	Re-electrification of Room No : 101 to 109, 111, Passages and cabins at Ground Floor of Old Bio-sciences Building under CISST Programme	4.23 Lakh	Completed
7	Electrification Work for Womens' Hostel & USIC Portion (G+3 Floor)	13.36 Lakh	Completed
8	Re-electrification of H Type Staff Quarters	4.83 Lakh	Completed
9	Re-electrification of Home Science Building (For Lab no : G2, G4 & HOD Cabin)	1.26 Lakh	Completed
10	Re-electrification of Humanities Building	31.21 Lakh (Estimated)	Completed
11	Re-electrification Work of Lab No : 207 at Bio-science Department	2,57,081.00	Completed
12	Electrification Work of Lab No : 108 Purse Programme	1,03,221.0	Completed
13	Electrification Work of Lab No : G-2, G-4 & Head Cabin at Home Science Department	98,534.00	Completed
14	Electrification Work of USIC Section & Women Hostel	13,36,661.00	Completed
15	Electrification Work of Community Science Centre	1,26,460.00	Completed
16	Electrification Work of Chemistry Dept II nd Floor Extended Portion	3,07,372.00	Completed
17	Under Ground Cabling Street Light at Museum Road	99,530.00	Completed
18	8 Mtr PSC Pole with Laying 95 Sqm Cable	33,000.00	Completed
19	Gymnasium Hall Electrification work	35.00 Lakh	Completed

Repairs and Maintenance Work in Progress/Completed in The Year

Sr No	Particulars	Cost (₹)	Status
1	Providing and Fixing Glass at University Staff Quarters	28,684.00	Completed
2	Providing and Fixing FRP Sheet and Shed at Bio-sciences Building	1,34,849.00	Completed
3	Colour Work at Nehru Hall Hostel (Men's Hostel No : 1)	6,20,801.00	Completed

4	Providing and Fixing Book shelf at Bhaikaka Library	3,52,764.00	Completed
5	Providing and Fixing Pipe Line and Removal of Trees from Wall at Old Hostel	76,506.00	Completed
6	Providing and Fixing A/C Roofing Sheet at Staff Quarters	50,073.00	Completed
7	Providing and Fixing Rain Water Pipe at Bio-sciences Building	39,251.00	Completed
8	Providing and Fixing Fencing Work at SSF Hostel	40,729.00	Completed
9	Repairing and Renovation of Toilet Block at T, G & BSc BEd Block	1,55,931.00	Completed
10	Providing and Fixing A/C Roofing Sheet at Old Hostel Canteen	54,205.00	Completed
11	Providing and Fixing A/C Roofing Sheet at Staff Quarters	27,473.00	Completed
12	Providing and Fixing Tiles Flooring Work at Lab No : 302-A & B at Bio-sciences Building	1,46,701.00	Completed
13	Providing and Fixing Tiles Flooring Work at Lab No : 202 & 203 at G H Patel Computer Science & Technology Department	2,87,050.00	Completed
14	Providing and Fixing Glass at University Staff Quarters	31,337.0	Completed
15	Providing and Laying PCC (1:2:4) Under Tiles Flooring at G H Patel Computer Science & Technology Department	75,488.00	Completed
16	Repairing and Renovation of Toilet Block at BSc BEd Block 51/52, 69/70 Quarters	43,368.00	Completed
17	Repairing of Table Top at Faculty Guest House	34,770.00	Completed
18	Providing and Fixing Pipe Line, Door Shutters and RCC Frame at CTE Hostel	1,11,398.00	Completed
19	Renovation of Toilet Block at VC Office	29,367.00	Completed
20	Renovation work of Toilet Block and Water Proofing at D-45 to 48 Quarters at University Staff Colony	3,01,768.00	Completed
21	Providing and Fixing Fabrication Grill at Nehru Hall Hostel	31,955.00	Completed
22	Providing and Fixing RCC Door Frame and FRP Door at D-30 Quarters	35,245.00	Completed
23	Providing and Fixing Glass Work at University Staff Quarters	36,535.00	Completed
24	Removal of Trees from Wall at University Staff Quarters and Hostel	74,000.00	Completed
25	Providing and Fixing A/C Roofing Sheet at University Staff Quarters	1,40,468.00	Completed
26	Removing and Refixing of Door Frame and Shutters at University Staff Quarters D-31, 32, 37, 59, 64 & 70	69,968.00	Completed
27	Toilet Block Renovation, Sintex Water Tank Fitting and Pipe Fitting Work at D-50/52 Quarters	1,29,932.00	Completed
28	Providing and Fixing Table Top Lamination at Nehru Hall Hostel	3,80,227.00	Completed
29	Renovation of Master of Social Work Department	3,08,763.00	Completed
30	Providing Colour Work D Block Quarters	4.03 Lakhs	Completed