

# Departmental Activity Report



Accredited “A” Grade by NAAC

**Natubhai V. Patel College of  
Pure & Applied Sciences  
Vallabh Vidyanagar**

# **DEPARTMENTWISE ACTIVITIES / ACHIEVEMENTS:**

## **DEPARTMENT OF BIOLOGICAL AND ENV SCIENCE**

1. Total Nos. of Seminar/Workshop Organized: **03**
2. Total Nos. of Paper Presented/Published:  
National Level: **01**  
International Level: **05**
3. Nos. of Educational Trips organized (with details in 04 lines) with no. of students participated. **04**
  - A. **Educational Trips**
    - [1] **An educational tour to Okha, Jamanagar marine National park** was organized from **19<sup>th</sup> Feb 2017 to 23<sup>rd</sup> Feb 2017** for S.Y B.Sc Env.Science students. Faculty members Dr. Isha Desai, Ms. Khushboo Pandey and Mr. Hardik Parikh led the tour. Total of **37 students** participated in study tour.
    - [2] **One day visit to Champaner** -Dr Rita N Kumar took the students to **Champaner** – the Heritej Place on occasion of Panch Mahotsav. The visit was organized on **11<sup>th</sup> January 2018**. The students of S Y B.Sc (**30**) and faculty members Ms Rashmi Thakkar and Ms Hetal Shah took part in academic visit. The Forest walk and visit to Heritage place like Jama Masjid were the interesting aspects of tour.
    - [3] **An educational visit to SPRERI** – Total of **65** students of S Y and T Y B Sc were taken to visit Sardar Patel Renewable Energy Resources Inst. on **15<sup>th</sup> Feb 2018**. The practical visit to each section provided good understanding about Solar energy usage, Biomass use, Production of Gobar gas, Bio ethanol and Bio oil from Biomass.
  - B. **Industrial visits**

Visit to **four Industries** for the students of T Y B.Sc. Env.Sci (45) on **17 September 2017**. The thirty students were accompanied by Dr.Rita Kumar, Ms Rashmi Thakkar & Ms Khushboo Pandey

    - (1) **Bharuch Enviro Infrastructure Ltd. (BEIL)** -To learn about Landfill sites for Industrial Hazardous Waste and Common incineration facilities.
    - (2) **Enviro Technology Ltd (ETL)** -For Common Effluent Treatment Plant (CETP) at Ankleshwar Industrial Estate
    - (3) **Narmada Clean Technology Ltd. CETP** -For ETP of three industrial units Ankleshwar, Panoli and Jhagadia.
    - (4) **Glenmark Pharma.Ltd**-To visit ETP in a Pharmaceuticals in Bharuch
4. Total No. of Books Published: **06 (4 books with ISBN number)**
5. Total Nos. of Seminar/Workshop/etc. attended by Staff Members: **07**
6. Special Achievement by the Staff/Department.
  1. Dr Rita N Kumar participated in **World Wetland Day celebration** jointly organized by Forest Dept of Gujarat and GEER Foundation, Gandhinagar on Thursday **2<sup>nd</sup> February, 2017**. Dr Kumar took with her 30 students of Env.Science for participation
  2. Dr Rita N Kumar has become **Life member** of VIGYAN GURJARI of Vijnana Bharti- Gujarat unit on 27.4.2017

3. Dr Rita N Kumar was invited **as Chief Guest** at inter school competition “ Best out of Waste” organized by Home science Higher Secondary complex on **12.12.2017**
4. Dr Kumar provided services as **Ph.D Thesis evaluator** for Anand Agri University
5. Dr Susmita Sahoo served as **State and National Jury** in State and National Children Science Congress
6. Dr.Sahoo worked as Resource person in **Vacation Training Programme** on Biodiversity.
7. Dr Susmita Sahoo is recognized **Ph D guide** in the subject of Botany by Sardar Patel University. She presently is co guide of one research student.
8. Dr Ami Patel organized various events for NCC Cadets like Orientation Program, Visit by Commanding Officer of NCC 4 Gujarat Girls Battalion V V Nagar, Firing Practice at Rampura Range.
9. Dr Ami Patel attended ANO conclave organized by **NCC** Head quarter V V Nagar on 6<sup>th</sup> January , 2018
10. Dr Isha Desai worked as member Career Quantum programme for TY BSc students which was organized by NVPASAA on 23<sup>rd</sup> January 2018
11. Dr Isha Desai worked as member for Annual get together of NVPAS Alumni on 23<sup>rd</sup> January 2018
12. Dr Rita N Kumar worked as Core Committee member in 29<sup>th</sup> Inter Collegiate Competition held under the aegis of Gujarat Integrated Biology Network (**GiBioN**) jointly organized by GSBTM and Microbiology Study Circle, J & J College, Nadiad and NVPAS on 28/01/2018
13. Dr Ami Patel worked as Convener of Poster Presentation competition in GiBioN
14. Dr Isha Desai worked as Convener of Sciencetoon Competition in GiBioN
15. Dr Usha Verma worked as Convener of Extempore Competition in GiBioN
16. Dr Susmita Sahoo worked as Press Incharge in GiBioN

**Research Students ( under guidance of Dr Rita N Kumar ) :**

17. Ms Payal Desai, Ms Annie Abraham and Ms Mansi Banker have submitted synopsis under the guidance of Dr Rita N Kumar
18. Ms Annie Abraham (Ph.D Student) won 2<sup>nd</sup> Prize in Oral Presentation - Research student category at National Seminar “ Environment, Pollution and Climate Change” –EPCC2018
19. Ms Dharitri Ramanlal (Ph,D Student) won 2<sup>nd</sup> Prize in Poster Presentation -Research student category at National Seminar “ Environment, Pollution and Climate Change” –EPCC2018
20. Ms Dharitri Ramanlal has also qualified CBSE UGC NET for assistant professor.

## **7. Best Practices: Project / Dissertation work for T Y B Sc Students**

The department has introduced the **project work/ dissertation work** at final semester for T Y B Sc (Environmental Science) students. At 5<sup>th</sup> semester all faculty members are asked to submit their research topics. They also prepare weekly/monthly plan for proper execution of work. The students are divided into groups as per their merits in such a way that each group has combination of brilliant and weak students. One group leader is nominated from each group. The list of research topics are made known to student groups by displaying on board and each group is asked to select one research topic of their interest. The group leader alongwith team members contacts the research guide after selection of topic and discusses the plan of work. The students are asked to carry out and complete the lab work/ field work, result analysis and writing within the given time limit of 8 to 10 weeks. After the completion of work students submit their thesis

based on the work accomplished which is evaluated during university practical examination. This practice helps students to understand systematic working for research. A student learns the basics of research i.e. how to deal with the research problem, how to review the work done by referring the published research papers, standardization of methodologies, Data generation, statistical analysis, graphical and tabular presentation of data, interpretation and analysis of result. It serves to generate the aptitude for research in young minds.

## **DEPARTMENT OF BIOTECHNOLOGY, GENETICS & BIOINFORMATICS**

Total Nos. of Seminar/Workshop Organized: one seminar three workshops

Total Nos. of Paper Presented/Published:

National Level: \_\_\_\_\_02\_\_\_\_\_

International Level: \_\_\_\_\_08\_\_\_\_\_

Nos. of Educational Trips organized (with details in 04 lines) with no. of students participated.-----Two

- An Educational trip " Learning beyond Classrooms" to Akanksha Hospital & Research centre for TYBSc students of BT GT & BNF (80 students) was organized on 14/8/2017.
- SyBSc Genetics students were taken to Anand Agriculture university for learning some plant based techniques on 20th February, 2018.

Total No. of Books Published: \_\_\_\_\_one\_\_\_\_\_

Total Nos. of Seminar/Workshop/etc. attended by Staff Members: 4

Special Achievement by the Staff/Department.

Dr Pratibha Parihar is selected as a nodal officer of capacity building cell in Bioinformatics and got a grant for establishment of bioinformatics laboratory from GSBTM, on 13<sup>th</sup> Oct 2017 by state government Gujarat and GSBTM. College received five computers one workshop station and two softwares to establish a high tech Bioinformatics lab at NVPAS.

Best Practices:

- A skill development programme on **Propagation of Banana Through Tissue Culture** was organized where scientist Ms Shivani Hora from GSFC Baroda came to train students of BT,GT and Microbiology.
- Third batch of COC on molecular techniques in diagnosis was completed successfully with 27 students.

## **DEPARTMENT OF MICROBIOLOGY**

1. Total Nos. of Seminar/Workshop Organized: 02
2. Total Nos. of Paper Presented/Published:  
National Level: 01  
International Level: 03
3. Total Nos. of Seminar/Workshop/etc. attended by Staff Members: 07
4. Special Achievement by the Staff/Department. Dr. Gupte Invited member to Dept. of Biotechnology for the Brain storming session on Banana Downstream processing.  
Invited talk at International conference on Emerging trends in Biotechnology for waste conversion (ETBWC) 2017  
Dr. UrvishChhaya has been recognized as Environmental auditor up to December 2019 by Gujarat Pollution Control Board.  
Dr. UrvishChhaya served as a judge at district level competition organized by Forest Department of Gujarat at MU Patel Technical High School.
5. Best Practices: Self Evaluation chart, Mind Map for the students, Add on Course, Enrichment programmes

## **DEPARTMENT OF CHEMICAL SCIENCES**

Total Nos. of Seminar/Workshop Organized: 1 ( Workshop For Trainee Teachers)

### **ACHIEVEMENT & PARTICIPATION OF STUDENTS IN SEMINAR & WORKSHOP**

- ✗ **"SCIENCE CARNIVAL 2017 :**  
Nidhi P. Solanki student of T.Y. B.sc Stood first in "Science Carnival 2017" in power presentation competition conducted by V.P.Science college.
- ✗ **NATIONAL LEVEL SEMINAR:** Around 24 students participated in the National level seminar on "Advancements in chemical Technology - A Green Perspective" jointly organized by Department of Industrial Chemistry, ISTAR, & Department of Chemistry, Sam Higginbottom University of Agriculture, Technology & science(SHUATS) Allahabad on 20<sup>th</sup> Jan 2018.
- ✗ **Akshar Thummar & Krupal Padaliya** secured 3<sup>rd</sup> position in the poster competition at the National level seminar on "Advancements in chemical Technology - A Green Perspective" jointly organized by Department of Industrial Chemistry, ISTAR, & Department of Chemistry, Sam Higginbottom University of Agriculture, Technology & science(SHUATS) Allahabad on 20<sup>th</sup> Jan 2018 .
- ✗ **SCIENCE MEET - 2018:** 20 students participated in the Science Meet - 2018 on sunday 21<sup>st</sup> January 2018 organised by Gujarat Science Academy - VVN Chapter, V.P & R.P.T.P Science College & C.C.Patel Community Science centre (SPU)
- ✗ **TRAINING PROGRAMME:** Around 80 students are joining the hands on training programme on "Fundamental techniques in Pharmaceutical Industry on 8<sup>th</sup> February 2018 at ARIBAS, New Vallabh Vidyanagar.

- ✘ **SCIENCE MANTHAN 2018** : 15 students participated in science manthan 2018 organized by P. D.Patel Institute of Applied Sciences, Charotar University of Science & Technology, CHARUSAT, Changa on 25<sup>th</sup> February 2018.

**The winners: 1<sup>st</sup> in Collage - Chayan Pandya, Rutu Patel**

- ✘ **3<sup>rd</sup> in working model - Akshar Thummar, Bhargav Patel & Harsh Patel**

Nos. of Educational Trips organized (with details in 04 lines) with no. of students participated.

Industrial visit was organized on 27<sup>th</sup> December 2017 to industry "Gujarat Halogen Petrochem Corporation( GHPC)" manufacturer of Fine Chemicals, Khambatt. Around 60 students visited the industry.

Total No. of Books Published:       2      

Dr. Shveta Joshi & Dr. Ketul Patel

- Authored chapter in the book for first semester B. Sc. students entitled "Inorganic Chemistry" with ISBN NOS. 978-93-85138-17-1, Published by Atul Prakashan, Ahmedabad , Gujarat.

Dr. Smita Srivastava & Dr. Bhavin Patel

- Authored a chapter in the book for Semester-II students of B.Sc., S P University; titled, "Physical Chemistry" with ISBN NOS.978-819305033-0, Published by Atul Prakashan, Ahmedabad , Gujarat (Second Edition).

Total Nos. of Seminar/Workshop/etc. attended by Staff Members: ONE

Best Practices:

- ✘ QUIZ COMPETITION: 45 students participated in the written quiz competition conducted on 21<sup>st</sup> July 2017.

### **GUEST LECTURES**

- ✘ Lecture series was organized on 21<sup>st</sup> July 2017 for 134 students of T.Y.B.Sc by Prof (Dr.) Saurabh Soni, Post Graduate Department of Chemistry on the topic "Solid State Chemistry"
- ✘ Dr. Parag Karia (Alumini), Asst. Prof , Surface Coating, ISTAR on the topic "NMR Spectroscopy".
- ✘ Lecture by Alumini Mr. Baiju G Verghess, HOD - Department of Industrial Hygiene and Safety, was conducted on 17<sup>th</sup> January 2018 on the topic "Industrial or Occupational Hygiene" was attended by 134 students of T.Y. B,Sc.
- ✘ Guest Lecture by Dr. Yogesh Ajudiya on "Preparation for Entrance examination" like NET, SLET, GATE, ONGC etc was arranged for the S.Y & T.Y. B.Sc class students. Around 230 students were enlightened by the event on 7<sup>th</sup> February 2018.
- ✘ Mr. Bhautik Sheth (Alumini) delivered the lecture on "Digital Marketing – Building Professional Identity" on 16 February 2018.

- ✘ Mr. Purnesh Patel (Director, Consulting Services “Reach The Globe” gave an insight into “The Future Perspective of Chemistry in India & Abroad”. He provided the information regarding the opportunities available for specialization after B.Sc in Chemistry in India & Abroad on 16 February 2018.

## **DEPARTMENT OF INDUSTRIAL CHEMISTRY**

Total Nos. of Seminar/Workshop Organized: 01 [ IC-FEST-2018]

- ❖ One day seminar IC-FEST 2018 was celebrated on 10<sup>th</sup> January 2018 by the Department.

Total Nos. of Paper Presented/Published:

International Level: \_\_01\_\_by Dr.Archana Shah

Nos. of Educational Trips organized (with details in 04 lines) with no. of students participated.

- ❖ Industrial visit to Glass Coat was arranged for S.Y. IC students on 29<sup>th</sup> July 2017.Total 47 students had participated.
- ❖ Maharshi Pharma Chem,Delux Paint ,Unnati Cable and Urmila Group of Industries were visited by S.Y. BSc. IC students on 28<sup>th</sup> December 2017 .Total 56 students had visited the companys.
- ❖ Industrial visit to UPL, Plant 1 and 3, Ankleshwar was arranged on 5<sup>th</sup> December 2017 for T.Y.BSc students total 31 students had participated

Total Nos. of Seminar/Workshop/etc. attended by Staff Members: 02

Special Achievement by the Staff/Department.

- ❖ Dr.Archana Shah worked as a jury member of poster presentation competition in a National Level Seminar jointly organized by ISTAR and Department of Chemistry (SHUATS), Allahabad held on 20<sup>th</sup> January 2018.

Best Practices:

- A Certificate course titled “A Green and Safe Approach For Sustainable Development in Industries” was successfully completed this year by the department.
- Dr.D.K.Raval, Professor, Department of Chemistry was invited in the inaugural session of certificate course.
- Dr. Jigar Patel from ISTAR was invited for a talk on 2<sup>nd</sup> August 2017. He talked about Role of Pharma Industries in India.
- Dr.Kalpesh Patel from ISTAR had delivered a talk on “Surface Coating Industries” on 2<sup>nd</sup> August 2017.
- Dr. Gautam Patel, an alumni of our college and Incharge Dean, IBM Vocational University delivered a lecture on “Research Methodology for Insecticides” in the seminar.
- Mr.Keyur Trivedi Ex-safety engineer of Dipak Nitrate Inds. Ltd,Nandesari was invited for a talk on “Safety in Industries”.

## **DEPARTMENT OF COMPUTER SCIENCE**

Number of Permanent Staff: 07

With Ph.D. : 04

Without Ph.D. : 03

Total Nos. of Seminar/Workshop Organized: 04 , Expert Talk – 02 , FDP - 03

Total Nos. of Paper Presented/Published:

State Level: 01

National Level: 02

International Level: 05

Nos. of Educational Trips organized (with details in 04 lines) with no. of students participated.

1. Educational Visit to CDAC Pune : Mr. Mayur Patel, Dr. Tejas Thakkar and Dr. Chetan Dudhagara accompanied students of B.Sc., BCA and M.Sc. IT (Integrated) to industrial visit to CDAC Pune, from 21 to 26th August, 2017. 79 students participated.
2. Educational visit to “ISRO & Science City” for the First year BCA , BSc. (CA&IT) & SYBCA/IT students on 14th February. Dr. Tejas Thakkar, Dr. Hasamukh Patel and Dr. Monika Patel accompanied the students for the visit. 65 students participated.

Total Nos. of Seminar/Workshop/etc. attended by Staff Members: 20

Special Achievement by the Staff/Department.:

1. Mr. Hasamukh Patel , completed Ph. D. from Rai University, Ahmedabad in July, 2017.
2. Mr. Ghanshyam Parmar, completed Ph. D. from Rai University, Ahmedabad in May, 2017.
3. Ms. Monika Patel , completed Ph. D. in Computer Science from Sardar Patel University in May, 2017.

Best Practices:

- a. Advanced Learner Cell : Arranges workshop and seminar on latest topics.
- b. Certificate Course in Web Designing: Department conducts certificate course in Web Designing since last 3 years. This year 40 students completed the course successfully.



## **DEPARTMENT OF PHYSICAL SCIENCES:**

### **Nos. of Educational Trips organized (with details in 04 lines) with no. of students participated.**

1. Science City & Space Exhibition ISRO, Ahmedabad Visit. Organized on 3<sup>rd</sup> and 14<sup>th</sup> February 2018 in which around 260 students participated from First Year BSc/BCA/MSc(IT)
2. SICART visit for the First Year students of B.Sc. organized by the department in which more than 350 students participated batch-wise.
3. Industrial visit to AMUL Dairy, Anand for the students of SYBSc and TYBSc Instrumentation.

### **Total Nos. of Seminar/Workshop/etc. attended by Staff Members: 04**

### **Special Achievement by the Staff/Department.**

#### **Dr. Himanshu J. Trivedi :**

- Received a collaborative research project from SAC, ISRO, Ahmedabad for the duration April-2017 to March-2020, having total worth of Rs. 44.00 lakh.
- Worked on a committee formed by B & B Polytechniquecollege, VallabhVidyanagar to monitor the progress of the BRNS, BARC sponsored research project.

#### **Dr. Yogesh A. Patel :**

- Elected as Senate Member of Sardar Patel University from the college.
- Selected as a member of the committee formed by S. P. University Radio FM station.
- Working as the member co-ordinator for NSS units of all colleges of S. P. University

#### **Dr. Mehul S. Dave :**

- Worked as an examiner for Ph.D. Viva-Voce exam in Physics at Rai University, Ahmedabad.
- Worked as a judge of at “Science-Manthan 2018” at Charusat University, Changa for the event of project model making competition.

#### **Dr. Dhananjay K. Dhruv :**

- Delivered a lecture as a resource person at the NBTCBC Crash workshop organized by Kadi Science College, Kadi, Gujarat.
- Delivered a lecture as a resource person at the NBTCBC Crash workshop organized by NVPAS, VallabhVidyanagar, Gujarat.

### **Best Practices:**

- Department runs a Certificate Course in “Measurement Proficiency Development” for the students of college. The duration of the course is 30 hours and the intake is 30 students.

## **DEPARTMENT OF MATHEMATICAL SCIENCES**

Total Nos. of Guest lecture Organized: 01

Total Nos. of Seminar/Workshop/etc. attended by Staff Members: 05

Special Achievement by the Staff/Department.

- Dr. Bhailal Patel has been awarded **Ph.D degree** by CHARUSAT University in June, 2017.

Best Practices:

- Prepare students for Prof. A. R. Rao State level Mathematics competition and other competitive exams.

## **DEPARTMENT OF ENGLISH:**

Total Nos. of Paper Presented/Published:

- National Level: ONE

Total Nos. of Seminar/Workshop/ Conference etc. attended by Staff Members: 02

Best Practices:

- Introduced Bridge Course for the First Year students of vernacular medium this year to help them cope with the change in medium of instruction.
- Two-Week Skill Development Programme is organized for the students of Second Year B.Sc. wherein topics like 'Writing Job Application and Resume', 'Group Discussion' and 'Interview Skills' are covered. It was initiated from last year.

## **ENTRANCE EXAMINATION PREPARATION CELL (EEPC)**

EEPC activities are coordinated by Dr. Amit Ballani, Dr. Kundan Kumar Mishra and Dr. Urvis Chhaya. EEPC organized orientation session cum inauguration session and more than 63 session and 05 Mock Test have been organized in this session.