



सरदार वल्लभभाई राष्ट्रीय प्रौद्योगिकी संस्थान,
सूरत-395007, गुजरात
Sardar Vallabhbhai National Institute of
Technology, Surat-395007, Gujarat

समाचार पत्रिका NEWSLETTER

May 2024

रसायनिकी विभाग Department of Chemistry

IN THIS ISSUE:

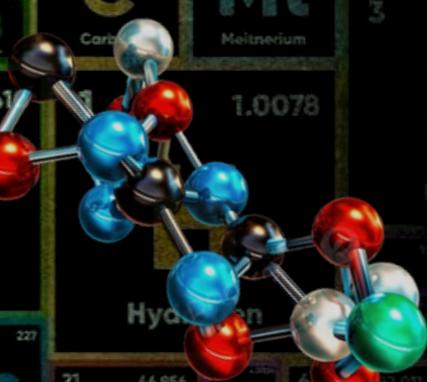
FACULTY PROFILE

FACILITIES

ACHIEVEMENTS

ACTIVITIES

PLACEMENTS



CONTENTS

Table of

- 1** About Dept. of Chemistry (DoC)
- 2** Messages
- 3** About DoC Faculties
- 17** Ph.D. Awarded Students
- 24** Ph.D. Ongoing Students
- 34** Instrumentation Facilities
- 35** Achievements (Department)
- 36** Patents
- 37**  - Departmental Events
- 39** Ph.D. Fellowships & Placement Profile
- 41** PG Internships
- 42** Achievements (Students)
- 43** Demographics
- 44** Dynamic Team

DEPARTMENT OF CHEMISTRY



The Department of Chemistry is a dynamic multidisciplinary research centre for research work in all field of Chemical Sciences that includes Computational Chemistry, Surfactants, Polymer Chemistry, Organic synthesis, Natural products, Organometallics, Metal Clusters, Nanomaterials Organic inorganic Hybrid materials, Coordination Chemistry, Biophysical Chemistry, Catalysis, Spectroscopy, Nano-Biomaterials, Quantum Chemistry, Supramolecular Chemistry and Green Chemistry. Department of Chemistry has two academic programmes: Integrated Master of Science in Chemistry and Ph.D. The Department of Chemistry at SVNIT over a period of me, has acquired many advanced analytical equipment such as NMR, ESI Mass spectrometer, surface tensiometer, ATR FT-IR, UV-Vis, HPLC, DSC, TGA, Fluorescence spectrometer etc. Department takes this privilege to publish the highest number of research articles of high repute amongst all the other department in the institute.

VISION

The Department of Chemistry aspires to be a globally recognized center of excellence in chemical research, education, and innovation, producing leaders who will contribute to the advancement of society through the application of chemistry.

MISSION

The Department of Chemistry is dedicated to fostering intellectual curiosity, creativity, and innovation in chemistry by offering a dynamic learning and research environment. In order to confront the complex difficulties facing society, we want to provide our graduates with a solid foundation in chemistry, and a capacity to uphold the highest ethical and professional standards.

MESSAGE

2



Dr. Bharatkumar Dholakiya

Head of the Department

Lithium

I am delighted to welcome you on behalf of the Department of Chemistry, SVNIT, Surat, as we unveil our 2024 newsletter. I would like to extend my heartfelt congratulations to our students for their dedication and perseverance in their academic pursuits. I would also like to express my gratitude to our faculty and staff for their unwavering commitment to excellence in teaching, research, and service. Your contributions are invaluable in shaping the future of our department and preparing our students for success in their chosen fields. I encourage everyone to stay engaged and involved in the exciting initiatives and opportunities like participating in research projects and internships, attending seminars and workshops, or simply fostering a sense of community within our department. Your involvement is key to our collective success and thank you for your continued support and dedication to the field of chemistry. As the Head of the Department, it's my pleasure to share with you the latest innovations, breakthroughs, and insights of the department. Our department is committed to advancing scientific knowledge, fostering interdisciplinary collaborations, and preparing the next generation of chemists to tackle the world's most pressing challenges. The Department of Chemistry offers Five Year Integrated M. Sc. and Ph. D. program in Chemistry.

I invite you to explore the exciting world of chemistry with us and witness how our collective efforts are shaping the future. Together, let's ignite curiosity, inspire discovery, and make meaningful contributions to society through the transformative power of chemistry.



Dr. Naved I. Malek

Training & Placement Faculty Incharge

Hydrogen

12.01

109

278

Gadolinium

Greetings from T&P Faculty Coordinator for DoC, SVNIT, Surat. Our department has forged a distinguished reputation, emphasizing research, innovation, and industry relevance. Our experienced faculty not only spearhead advanced projects but also mentor students at all levels, fostering a culture of academic excellence and innovation. The Integrated M.Sc. program prioritizes practical learning, supported by modern facilities and hands-on training. Students actively pursue internships, showcasing their skills beyond academia. We invite industries, organizations, and alumni to engage in our placement drive, offering talented individuals poised for success. Best wishes to the M.Sc. 2024 batch for a rewarding placement journey.



Dr. Ketan C. Kuperkar

Newsletter Incharge

Hydrogen

21

14.950

I applaud the entire team of dynamics students for bringing out this issue of our annual newsletter. Kudos to the team for their dedication in marking this newsletter's second anniversary. This issue covers the events, highlights, achievements and demographics of the departmental students and faculties. Your comments and suggestions are welcome to make the next issue of the newsletter more interactive.

ABOUT DOC FACULTIES

4



डॉ. स्मिता जौहरी
Dr. Smita Jauhari

Professor, Ph. D.

Date of joining: 30/11/2006

Area of research: Corrosion, Polymers and Wastewater treatment

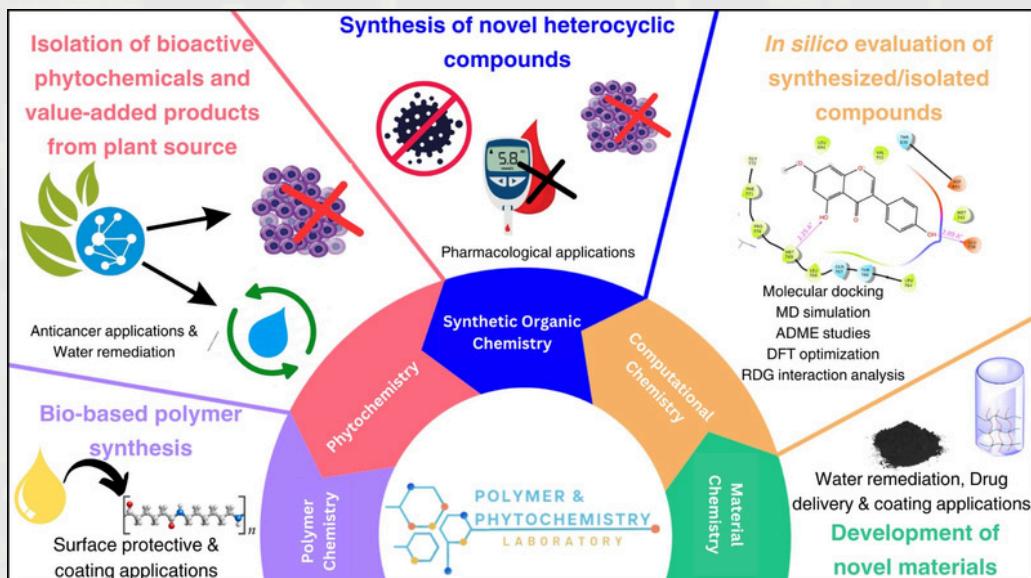
Selected Articles:

1. Design and synthesis of novel 1, 2, 3-triazole linked hybrids: Molecular docking, MD simulation, and their antidiabetic efficacy as α -Amylase inhibitors AR Zala, HN Naik, I Ahmad, H Patel, S Jauhari, P Kumari Journal of Molecular Structure 1285, 135493
2. Dilip C. Kanjariya, Hem N. Naik, Meet J. Sherashiyia, Yogesh T. Naliapara, Iqrar Ahmad, Harun Patel, Dhanji Rajani, Smita Jauhari "α-amylase and mycobacterium-TB H37Rv antagonistic efficacy of novel pyrazole-coumarin hybrids: An in vitro and in silico investigation", Journal of Biomolecular Structure & Dynamics (Published), IF-4.4

Profile page : <https://www.svnit.ac.in/facup/sj.pdf>

Office email : sj@chem.svnit.ac.in

Graphical Abstract:



Total Publications till date: 73 ; h-index: 13 ; Patents: 1

No .of Ph.D. Awarded: 7 ; No. of Ph.D. Ongoing: 5

ABOUT DOC FACULTIES



डॉ. भरतकुमार धोलकिया
Dr. Bharatkumar Dholakiya

Professor, Ph. D.

Date of joining: 13/03/2009

Area of research: Polyester resin for specialty applications, Biofuels-Ultra efficient biodiesel manufacturing

Selected Articles:

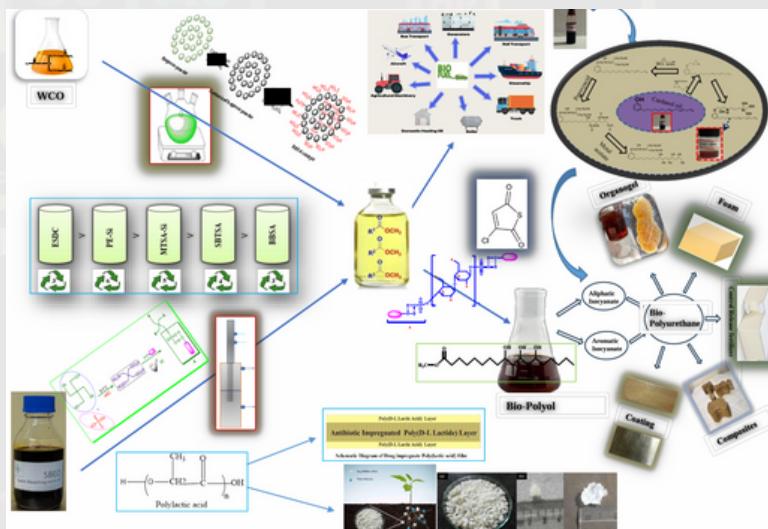
1. Meenakshi Paswan, Swati Patel, Vimal Prajapati, Bharatkumar Z. Dholakiya, Preparation and characterization of slow-release fertilizers loaded guar gum-g-poly methylmethacrylate-cl-polylactic acid (Gg-g-PMMA-cl-PLA) hydrogel and its effect on wheat growth, International Journal of Biological Macromolecules, 253(4), 126979, 2023.
2. Meenakshi Paswan, Vimalkumar Prajapati, Bharatkumar Z. Dholakiya, Optimization of biodegradable cross-linked guar-gum-PLA superabsorbent hydrogel formation employing response surface methodology, International Journal of Biological Macromolecules, 223(A), 652-662, 2022.

Profile page : <https://www.svnit.ac.in/facup/bzd.pdf>

Office email : bzdholakiya@chem.svnit.ac.in

Google Scholar: <https://scholar.google.co.in/citations?hl=en&user=SnevgoAAAAJ>

Graphical Abstract:



Total Publications till date: 103 ; h-index: 20 ; Patents: 8

No. of Ph.D. Awarded: 8 ; No. of Ph.D. Ongoing: 8

ABOUT DOC FACULTIES

5



डॉ. सुरेश कुमार कैलासा
Dr. Suresh Kumar Kailasa

Associate Professor, Ph. D.

Date of joining: 27/03/2009

Area of research: Miniaturized Extraction Techniques and Capillary Electrophoresis, Functional Nanomaterials, MALDI- and ESI- Mass Spectrometry, Plasmonic and Fluorescent Nanosensors, Biosensing, Bioimaging and Drug Delivery, Green and Environmental Chemistry

Selected Articles:

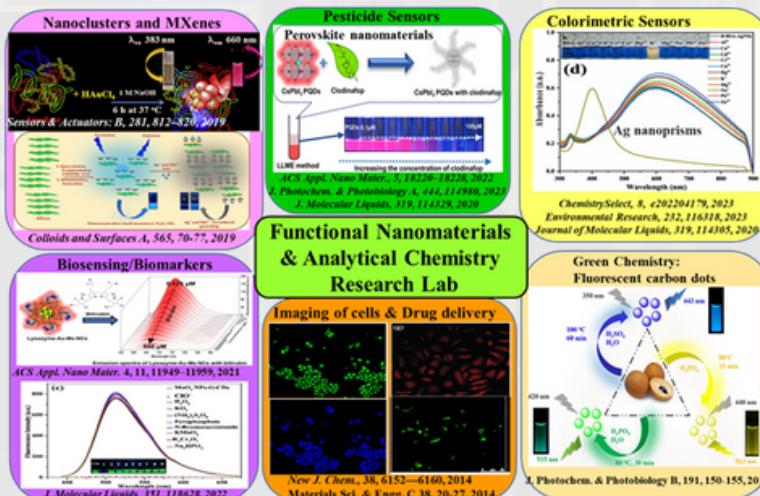
1. Kailasa, S. K.; Koduru, J. R.; Desai, M. L.; Park, T. J.; Singhal, R. K.; Basu, H. Recent progress on surface chemistry of plasmonic metal nanoparticles for colorimetric assay of drugs in pharmaceutical and biological samples, *TrAC Trends in Analytical Chemistry* 105, 2018, 106-120.
2. Mehta, V. N.; Jha, S. ; Basu, H.; Singhal, R. K.; Kailasa, S. K. One-step hydrothermal approach to fabricate carbon dots from apple juice for imaging of mycobacterium and fungal cell, *Sensors and Actuators B: Chemical* 213, 2015, 434-443.

Profile page : <https://www.svnit.ac.in/facup/sk.pdf>

Office email : skk@chem.svnit.ac.in

Google Scholar: <https://scholar.google.com/citations?hl=en&user=ybF8xZYAAAAJ>

Graphical Abstract:



Total Publications till date: 220 ; h-index: 58 ; Patents: 0

No. of Ph.D. Awarded: 7 ; No. of Ph.D. Ongoing: 11

ABOUT DOC FACULTIES

6



डॉ. सुबन के. साहू
Dr. Suban K. Sahoo

Associate Professor, Ph. D.

Date of joining: 20/03/2009

Area of research : Inorganic, Supramolecular Chemistry and Molecular Modeling

Selected Articles:

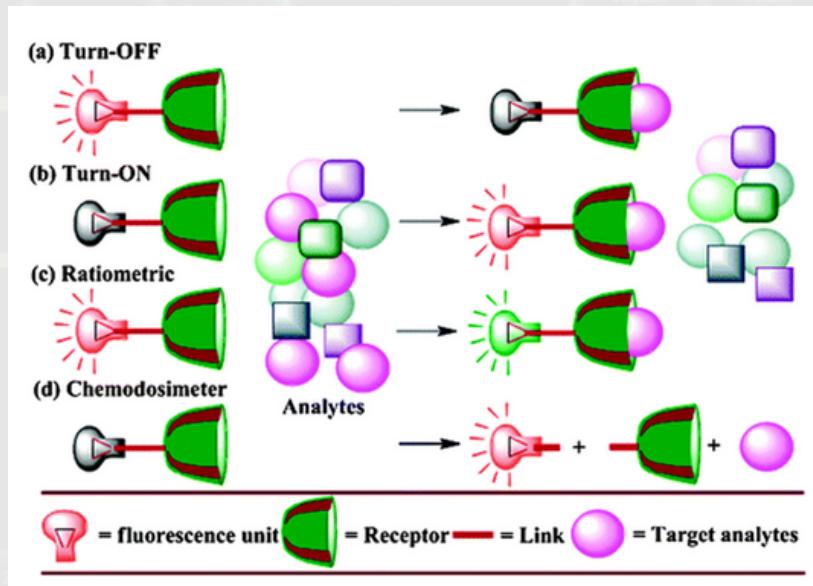
1. Fluorescent ovalbumin-functionalized gold nanocluster as a highly sensitive and selective sensor for relay detection of salicylaldehyde, Hg(II) and folic acid. Rajanee Nakum , Arup K. Ghosh , Bigyan Ranjan Jali , Suban K. Sahoo
2. Detecting Moisture in Building Materials and Commercial Food adducts by 2-Hydroxy-naphthaldehyde Derived Chromo-Fluorogenic Chemosensor

Profile page : <https://www.svnit.ac.in/facup/sks.pdf>

Office email : sks@chem.svnit.ac.in

Google Scholar: <https://scholar.google.co.in/citations?hl=en&user=P7GKHgcAAAAJ>

Graphical Abstract:



Total Publications till date: 257 ; h-index: 46 ; Patents: 0

No. of Ph.D. Awarded: 6 ; No. of Ph.D. Ongoing: 8

ABOUT DOC FACULTIES



डॉ. नावेद आई. मालेक
Dr. Naved I. Malek
Associate Professor, Ph. D.

Date of joining: 08/07/2008

Area of research : Synthesis and Physical Properties of Polymers

Selected Articles:

1. Nildhara Parsana, Hiral Ukani, Omar A El Seoud, Azza Al-Ghamdi, Naved Malek, Deep eutectic solvent based self-healable, stretchable and injectable eutectogels: A versatile platform for breast cancer treatment, *Chemical Engineering Journal*, 488, (2024), 150703
2. Muzammil Kuddushi, Sargam Rajput, Ankit Shah, Jitendra Mata, Arvind Kumar, Vinod K Aswal, Omar El Seoud, Naved I. Malek, Stimuli Responsive, Self- Sustainable and Self-Healable Functionalized Hydrogel with Dual Gelation, Load-Bearing and Dye Adsorbing Properties, *ACS Applied Materials & Interfaces*, 11 (21) 19572-19583, 2019

Profile page :https://www.svnit.ac.in/facup/Dr.Naved_Malek-2019-1.pdf **Office email :** navedmalek@chem.svnit.ac.in

Google Scholar: <https://scholar.google.co.in/citations?hl=en&user=qAFNptwAAAAJ>

Graphical Abstract:



Total Publications till date: 135 ; **h-index:** 33 ; **Patents:** 0

No. of Ph.D. Awarded: 7 ; **No. of Ph.D. Ongoing:** 6

ABOUT DOC FACULTIES

8



डॉ. कल्पना सी. महेरिया
Dr. Kalpana C. Maheria

Associate Professor, Ph. D.

Date of joining: 23/07/2007

Area of research : Synthesis of materials, Ion-exchange, Waste water treatment and Catalysis

Selected Articles:

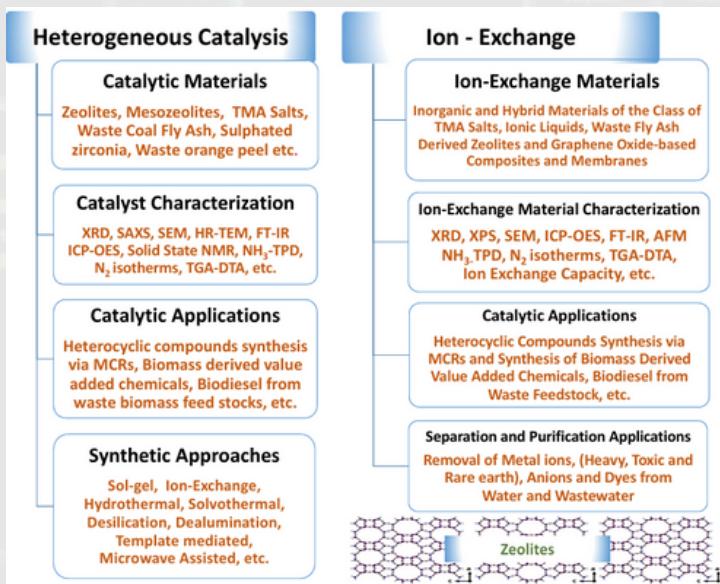
1. Maheria, K. C.: Kozinski J.: Dalai, A. K. Esterification of levulinic acid to n-butyl levulinate over various acidic zeolites, *Catalysis Letters*, 2013, 143, 1220-1225.
2. Lankapati, H.M.: Dankhara P. M.; Lathiya D. M.: Shah, B.; Chudasama U. V.; Choudhary L.; Maheria K.C. Removal of lanthanum, cerium and thorium metal ions from aqueous solution using ZrT hybrid ion exchanger, *Sustainable Energy Technologies and Assessments*, 2021, 47, 101415, 1-9.

Profile page : <https://www.svnit.ac.in/facup/kcm.pdf>

Office email : kcm@chem.svnit.ac.in

Google Scholar: <https://scholar.google.com/citations?hl=en&user=vBbKsa0AAAAJ>

Graphical Abstract:



Total Publications till date: 54 ; h-index: 21 ; Patents: 2

No. of Ph.D. Awarded: 9 ; No. of Ph.D. Ongoing: 6

ABOUT DOC FACULTIES

9



डॉ. प्रेमलता कुमारी
Dr. Premlata Kumari

Associate Professor, Ph. D.

Date of joining: 12/07/2006

Area of research : Carbohydrate Chemistry, Synthetic chemistry, Wastewater treatment and Drug delivery system

Selected Articles:

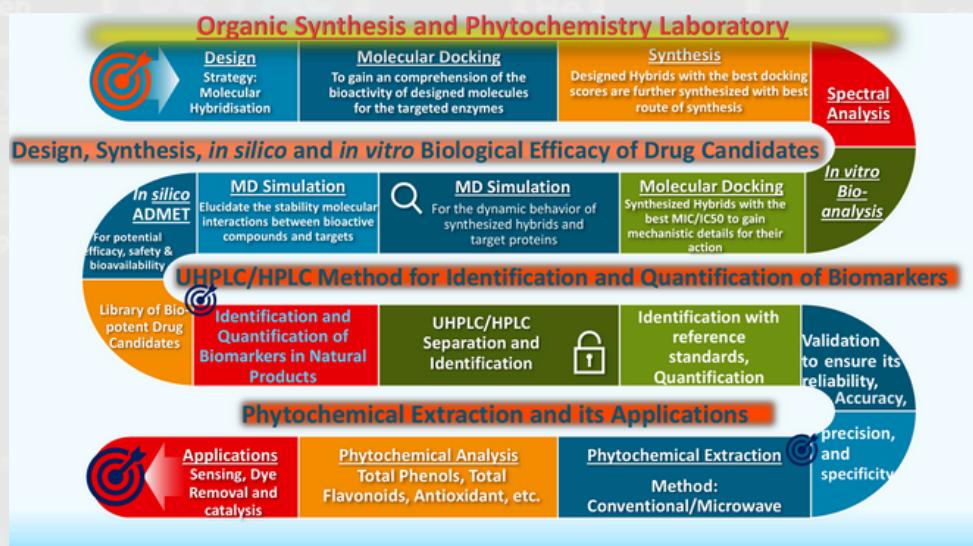
- Patel R.V., Patel P.K., Kumari P., Rajani D. P., Chikhalia K.H. Synthesis of benzimidazolyl-1,3,4-oxadiazol-2ylthio-N-phenyl (benzothiazolyl) acetamides as antibacterial, antifungal and antituberculosis agents. Eur. J. Med. Chem. 2012, 53, 41-45.
- Zala, A. R., Rajani, D. P., Ahmad, I., Patel, H., Kumari, P. Synthesis, characterization, molecular dynamic simulation, and biological assessment of cinnamates linked to imidazole/benzimidazole as a CYP51 inhibitor. Journal of Biomolecular Structure and Dynamics, 2023 41(21), 11518-1153

Profile page : <https://www.svnit.ac.in/facup/PLCV%20Aug2020.pdf>

Office email : pl@chem.svnit.ac.in

Google Scholar: https://scholar.google.com/citations?hl=en&user=8eqdB_oAAAAJ

Graphical Abstract:



Total Publications till date: 75 ; h-index: 24 ; Patents: 1

No. of Ph.D. Awarded: 6 ; No. of Ph.D. Ongoing: 6

ABOUT DOC FACULTIES

10



डॉ. केतन सी. कुपेरकर
Dr. Ketan C. Kuperkar
Associate Professor, Ph. D.

Date of joining: 02/09/2013

Area of research : Surfactant Science, Polymer Chemistry, Materials Science, Soft Condensed Matter, Computational Chemistry

Selected Articles:

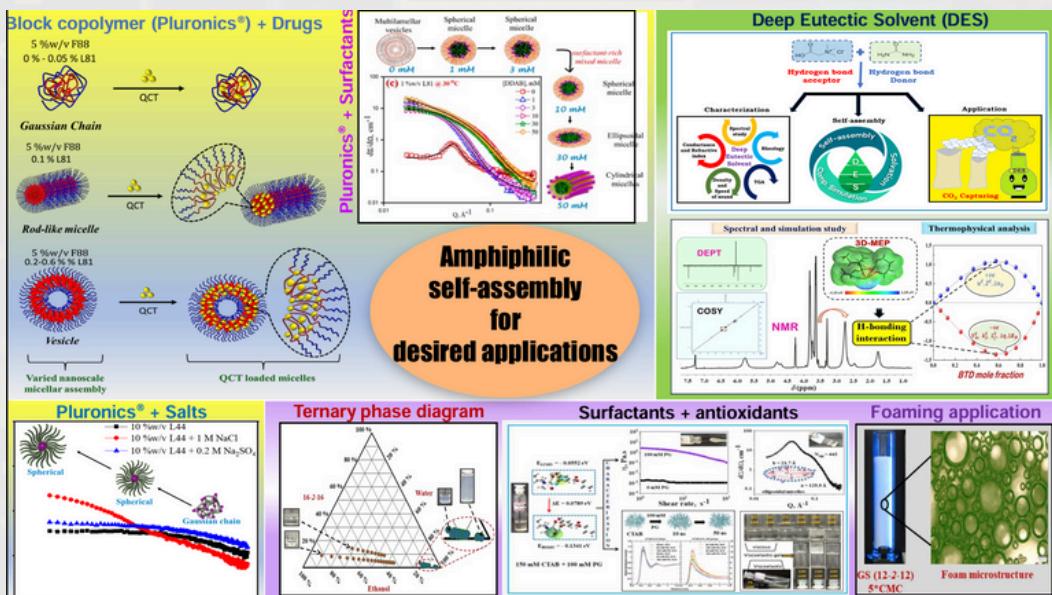
1. Rationalizing design of Pluronics-surfactant mixed micelles through molecular simulations and experiments. D. Patel, G. Pérez-Sánchez, M. Jorge, D. Ray, V. K. Aswal, K. Kuperkar, J. A. P. Coutinho, P. Bahadur, *Langmuir*, 2023, 39, 2692–2709.
2. Salt induced micellization conduct in PEO-PPO-PEO-based block copolymers: a thermo-responsive approach. N. Tripathi, D. Ray, V.K. Aswal, K. Kuperkar, P. Bahadur. *Soft Matter*, 2023, 19(37), 7227-7244.

Profile page : <https://www.svnit.ac.in/facup/kck.pdf>

Office email : kck@chem.svnit.ac.in

Google Scholar: <https://scholar.google.com/citations?hl=en&user=nCwVptMAAAJ>

Graphical Abstract:



Total Publications till date: 77 ; h-index: 21 ; Patents: 0

No. of Ph.D. Awarded: 6 ; No. of Ph.D. Ongoing: 8

ABOUT DOC FACULTIES



डॉ. ऋतंभरा जांगिर
Dr. Ritambhara Jangir
Assistant Professor, Ph. D.

Assistant Professor, Ph. D.

Date of joining: 30/09/2019

Area of research : Development of Covalent-organic Frameworks (COFs), Metal-organic Frameworks (MOFs), Polyoxometalates and Organophosphates, Fabrication of thin membranes using COFs and MOFs for waste water treatment, Biomimicking of enzymes, Crystal Engineering, Development of new catalysts for various organic synthesis reactions.

Selected Articles:

1. Kumar, S.; Dholakiya, B. Z.; Jangir, R.* Covalent Organic Framework Impregnated with Silver and Copper Nanoparticles: An Advanced Approach for Catalytic Degradation of Organic Pollutants in Wastewater. *ACS Appl. Mater. Interfaces* 2024, 16, 1, 1553–1563

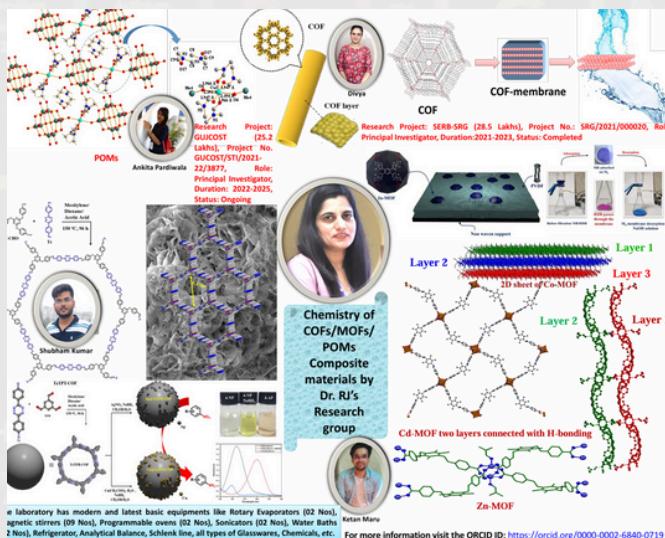
2. Maru, K.; Kalla, S.; Jangir, R.* Efficient Dye Extraction from Wastewater Using Indium-MOF-Immobilized Polyvinylidene Fluoride Membranes with Selective Filtration for Enhanced Remediation. *Langmuir* 2024, 40, 15, 8144–8161.

Profile page : <https://www.synit.ac.in/facup/RitambharaCV.pdf>

Office email : ritambhara.jangir@chem.synit.gq.in

Google Scholar: <https://scholar.google.com/citations?hl=en&user=yvpJeKcAAAAJ>

Graphical Abstract:



Total Publications till date: 25 : h-index: 7 : Patents: 0

No. of Ph.D. Awarded: 0 : No. of Ph.D. Ongoing: 1

ABOUT DOC FACULTIES

12



डॉ. तोगती नवीन
Dr. Togati Naveen

Assistant Professor, Ph. D.

Date of joining: 30/09/2019

Area of research : Metal Catalyzed C-H Functionalization Using Transient Directing Groups, Heterocycles Synthesis via C-H Functionalization, Metal Catalyzed Functionalization of Unactivated sp^3 C-H Bonds, Photoredox Catalysis, Hypervalent Iodine Chemistry, Metal free C-H Functionalization.

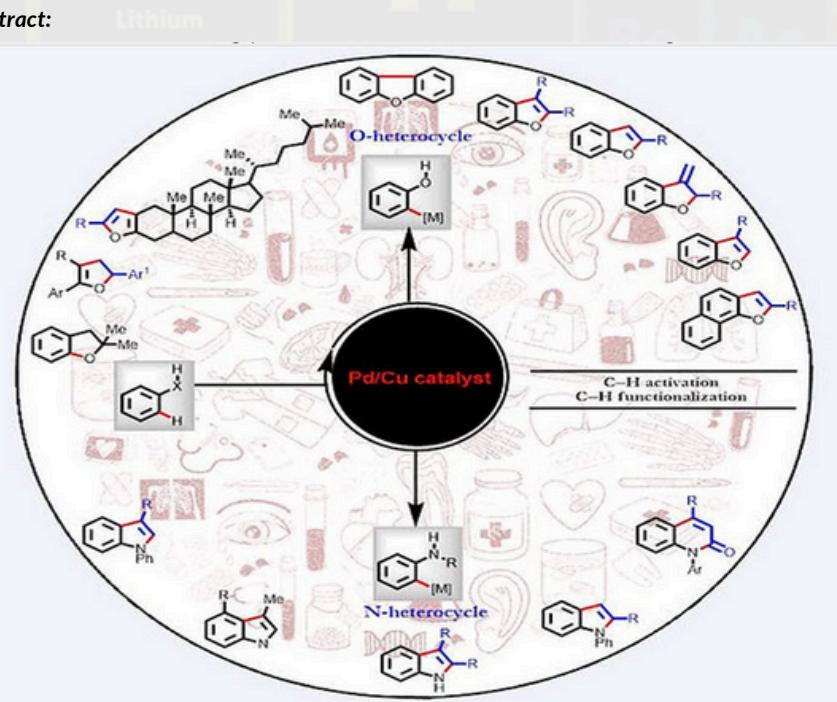
Selected Articles:

- 1.A. Ramani, R. S. Patil, H. Bhukya and Togati Naveen* Asian J. Org. Chem., 2023, DOI: <https://doi.org/10.1002/ajoc.202300336>.
- 2.Arti Ramani, Bhargav Desai, B. Z. Dholakiya and Togati Naveen* Chem. Commun., 2022, 58, 7850-7873.

Profile page : <https://www.svnit.ac.in/facup/Naveen%20CV%20Sept%201.pdf> **Office email** t.naveen@chem.svnit.ac.in

Google Scholar: <https://scholar.google.com/citations?hl=en&user=cQzxV5kAAAAJ>

Graphical Abstract:



Total Publications till date: 33 ; h-index: 17 ; Patents: 0

No. of Ph.D. Awarded: 0 ; No. of Ph.D. Ongoing: 5

ABOUT DOC FACULTIES

13



डॉ. ए. सिवाया
Dr. A. Sivaiah
Assistant Professor, Ph. D.

Date of joining: 05/03/2021

Area of research : Design and Synthesis of Molecular probes, Bioinorganic Chemistry, Supramolecular Chemistry, Nano/Bio Sensors and Biomaterial applications

Selected Articles:

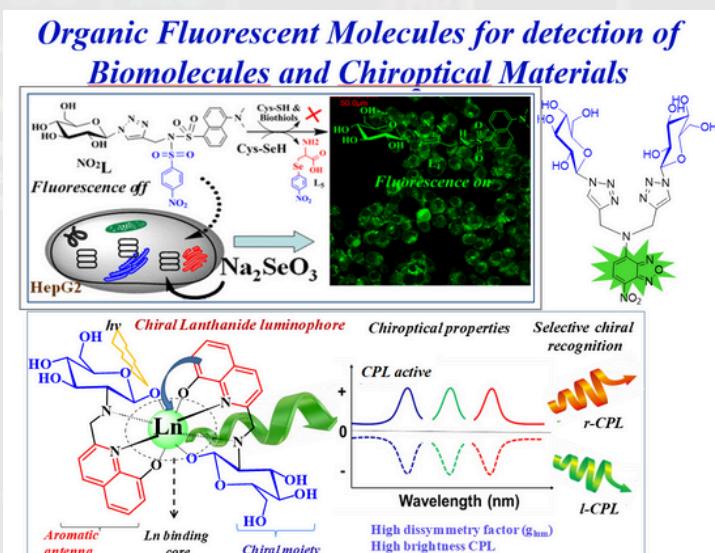
1. Maheshkumar, P.; Nidhi, P.; Sarita, K.; Sateesh, B.; Sivaiah, A. Synthesis and characterization of a rhodamine derivative as a selective switch-on fluorescent sensor for Cu²⁺ ions in aqueous PBS buffer and living cells. *Sens. Diagn.*, 2024, 3, 412–420.
2. Ravinkumar, V.; Nidhi, P.; Sateesh, B.; Sivaiah, A. Imino Phenolic Benzene-1,3,5-tricarbohydrazide Conjugate as a AIegen-Based Fluorescent Probe for the Detection and Bioimaging of Lipid Droplets in Living Cells. *ChemistrySelect* 2023, 8, e202303697

Profile page : <https://ravinsvaland.wixsite.com/my-site>

Office email : areti@chem.svnit.ac.in

Google Scholar: <https://scholar.google.com/citations?hl=en&user=SNILSK8AAAAJ>

Graphical Abstract:



Total Publications till date: 22 ; h-index: 10 ; Patents: 1

No. of Ph.D. Awarded: 0 ; No. of Ph.D. Ongoing: 2

ABOUT DOC FACULTIES

14



डॉ. सुब्रत दत्ता
Dr. Subrata Dutta

Assistant Professor, Ph. D.

Date of joining: 13/05/2021

Area of research : Synthetic organic chemistry, fluorescence dye for bioimaging applications, DNA and peptide-based catalysis

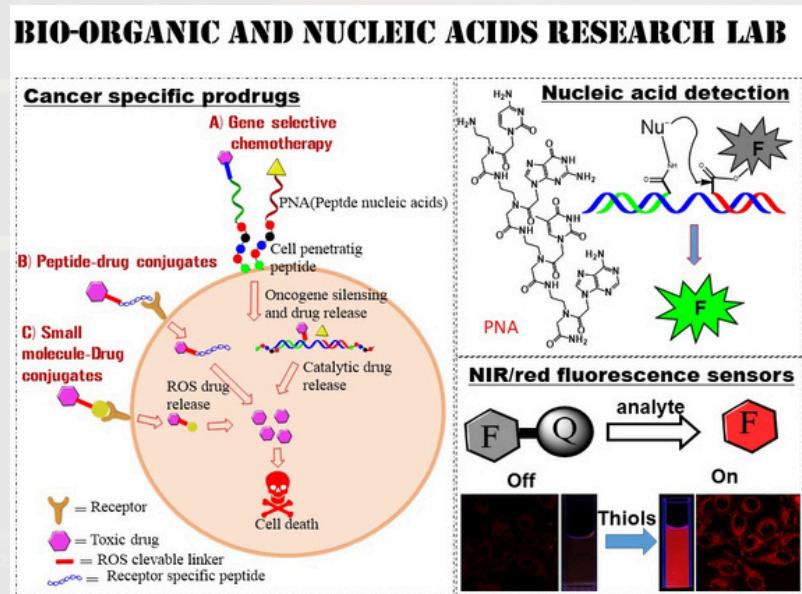
Selected Articles:

1. Dutta,S.; Rühle,J.; Schikora,M.; Deussner-Helfmann,N.; Heilemann,M.; Zatsepin,T.; Duchstein,P.; Zahn,D.; Knör,G.; Mokhir,A. Red light-triggered photoreduction on a nucleic acid template. *Chemical Communications*, 2020, 56, 10026-10029.
2. Dutta,S.; Foley, A.R.; Warner, C.J.A.; Zhang,X.; Rolandi,M.; Abrams,B.; Raskatov. J. A. Suppression of Oligomer Formation and Formation of Non-Toxic Fibrils upon Addition of Mirror-Image A β 42 to the Natural L-Enantiomer. *Angewandte Chemie (International ed.)*, 2017, 56, 11506 - 11510.

Profile page:<https://www.svnit.ac.in/facup/Subrata%20Dutta%20CV.pdf> Office email : subrata.d@chem.svnit.ac.in

Google Scholar: <https://scholar.google.com/citations?hl=en&user=29rBYwUAAAAJ>

Graphical Abstract:



Total Publications till date: 2 ; h-index: 9 ; Patents: 0

No. of Ph.D. Awarded: 0 ; No. of Ph.D. Ongoing: 3

ABOUT DOC FACULTIES

15



डॉ. लता राणा
Dr. Lata Rana
Assistant Professor, Ph. D.

Date of joining: 09/04/2021

Area of research : Synthetic Inorganic chemistry, Catalysis (Homogeneous and Heterogeneous), Bioinorganic Chemistry

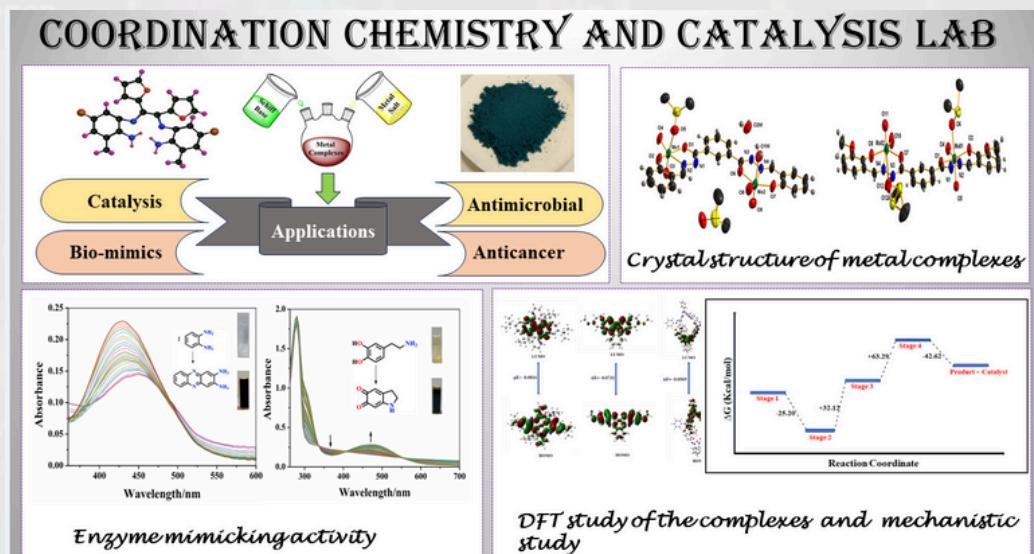
Selected Articles:

1. Rana; L., Dheeraj, Hundal; G. New Bis[cis-{MoO₂}] complexes with dihydrazone ligands: Synthesis, characterization, theoretical investigation and their peroxidase mimicking activity, Dalton Trans., 2023, 52, 5616–5631
2. Dheeraj, Rana; L., Hundal; G. New bis[MoO₂] and [MoO(O₂)] compounds: an artificial enzyme with peroxidase activity against o-phenylenediamine and dopamine, J. Inorg. Biochem., 2023, 244, 112231.

Profile page :<https://www.svnit.ac.in/facup/Dr%20Lata%20CV.pdf> Office email : latarana@chem.svnit.ac.in

Google Scholar: https://scholar.google.com/citations?hl=en&user=Zpl_928AAAAJ

Graphical Abstract:



Total Publications till date: 5 ; h-index: 6 ; Patents: 0

No. of Ph.D. Awarded: 0 ; No. of Ph.D. Ongoing: 2

ABOUT DOC FACULTIES

16



डॉ. अरुप कुमार घोष
Dr. Arup Kumar Ghosh

Assistant Professor, Ph. D.

Date of joining: 21/04/2021

Area of research: Environmental Chemistry, Computational Chemistry, Instrumentation, Spectroscopic Analysis, Atmospheric Chemistry

Selected Articles:

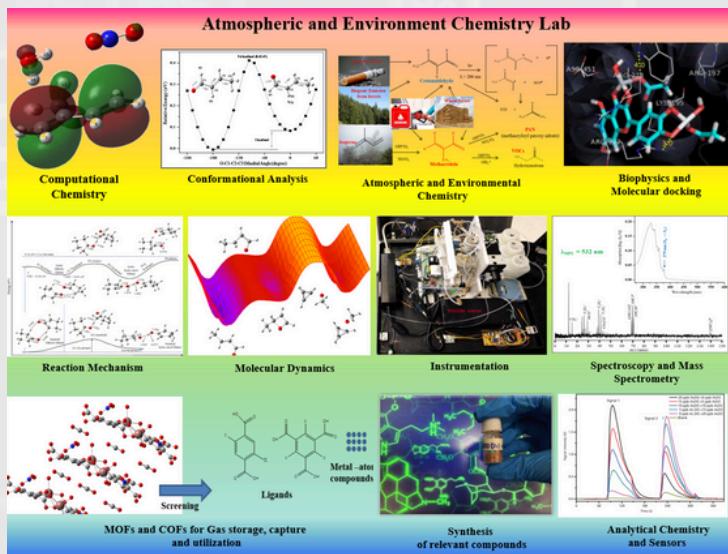
- Chatterjee, P.; Ghosh, A.K.; Samanta, M.; Chakraborty, T. Barrierless Proton Transfer in the Weak C-H...O Hydrogen Bonded Methacrolein Dimer upon Nonresonant Multiphoton Ionization in the Gas Phase. *J. Chem. Phys. A* 2018, 122(25), 5563–5573.
- Vegad, Y., Vardhan, S., Ghosh, A.K., Jali, B.R., Sahoo, S.K., Folic Acid Detection Using β -Cyclodextrin-Functionalized Copper Nanoclusters and Vitamin B6 Cofactor Pyridoxal. *ACS Appl. Nano Mater.*, 2024, 7(4), 4173–4181.

Profile page : https://www.svnit.ac.in/facup/CV_akg.pdf

Office email : akg@chem.svnit.ac.in

Google Scholar: <https://scholar.google.com/citations?hl=en&user=OW3OBRkAAAAJ>

Graphical Abstract:



Total Publications till date: 4 ; h-index: 6 ; Patents: 0

No. of Ph.D. Awarded: 0 ; No. of Ph.D. Ongoing: 2

Ph.D. Awarded Students

17

| <u>Current Photo</u> | <u>Name of PhD Student</u> | <u>Email ID</u> | <u>Title of the thesis</u> | <u>PI name (Co-PI name)</u> | <u>Passing Year</u> |
|----------------------|----------------------------|--|--|--|---------------------|
| | Dr. Borse Shraddha Kishor | shraddhaborse7@gmail.com | <i>Design and synthesis of metal nanoclusters for detection of drugs and biomarkers</i> | Dr. Suresh Kumar (Prof. Z. V. P. Murthy) | 2023 |
| | Dr. Monika Jain | monikajain536@gmail.com | <i>Stimuli Responsive Microstructural Aggregates of biocompatible Surface Active ionic Liquids as New Age Drug Carrier</i> | Dr. Suresh Kumar Kailasa | 2023 |
| | Dr. Henil Lankapati | lankapatihenil@gmail.com | <i>Synthesis, characteristics of inorganic/hybrid materials and their environmental applications</i> | Dr. Kalpana Maheria | 2023 |
| | Dr. Ajayrajsinh Zala | ajayrajsinhz2210@gmail.com | <i>Synthesis and biological evaluation of new bioactive compounds</i> | Dr. Premlata Kumari | 2023 |
| | Dr. Divya K. Patel | Pateldivya16496pd@gmail.com | <i>Influence of additives on the solution and micellization behavior of block copolymers.</i> | Dr. Ketan C. Kuperkar | 2023 |
| | Dr. Vinod Kumar | Vinodkk088@gmail.com | <i>Self-assembly and micellar transition induced in cationic surfactant-additives system.</i> | Dr. Ketan C. Kuperkar | 2023 |
| | Dr. Jyotsnam Nayak | nayakjyotsna980@gmail.com | <i>Synthesis of smart biocompatible and biodegradable Nanoparticle for targeted drug delivery in anti-cancer treatment</i> | Dr. Suban K. Sahoo | 2023 |
| | Dr. Anuj Kumar Saini | anuj.saini0308@gmail.com | <i>Vitamin B6 cofactors and salicylaldehyde conjugated fluorescent polymeric nanoparticles for sensing applications</i> | Dr. Suban K. Sahoo | 2023 |

Ph.D. Awarded Students

18

| <u>Current Photo</u> | <u>Name of PhD Student</u> | <u>Email ID</u> | <u>Title of the thesis</u> | <u>PI name (Co-PI name)</u> | <u>Passing Year</u> |
|----------------------|-------------------------------------|--|--|---------------------------------------|---------------------|
| | Dr. Sheshuvar dhan Pothabathula | sheshu.target@gmail.com | Computational studies on repositioning phytochemicals against SARS-CoV-2 and Monkeypox. | Dr. Suban K. Sahoo | 2023 |
| | Dr. Sonkeshriya Dhanshri | dhanshri.svnit@gmail.com | Vitamin B6 cofactors conjugated fluorescent turn-on probes for detecting alkaline phosphatase activity and albumins. | Dr. Suban K. Sahoo | 2023 |
| | Dr. Monika Jain | monikajain536@gmail.com | Stimuli Responsive Microstructural Aggregates of biocompatible Surface Active ionic Liquids as New Age Drug Carrier | Dr. Suresh Kumar Kailasa | 2023 |
| | Dr. Kateshiya Mehlukumar Rameshbhai | kateshiya88@gmail.com | Surface Modifications of Nanomaterials Synthesis Characterization and Analytical Applications | Dr. Suresh Kumar (Dr. Naved I. Malek) | 2022 |
| | Dr. Dhruvi Patel | Pateldivya16496pd@gmail.com | Nanoscale self-assembly and aggregation engineered using block copolymers for targeted applications. | Dr. Ketan C. Kuperkar | 2022 |
| | Dr. Anil Kumar Jangir | Janilkumar13@gmail.com | Preparation, Characterization, and applications of pure and cosolvent-modified Deep Eutectic Solvents. | Dr. Ketan C. Kuperkar | 2022 |
| | Dr. Dhara Morawala | surtidhara@gmail.com | Synthesis, characterization, and applications of composites of zeolites | Dr. Kalpana Maheria | 2021 |
| | Dr. Muzammil Kuddushi | muzammilvohra34@gmail.com | Stimuli Responsive Ionic Liquids Based Low Molecular Weight Gelators For biological and Environmental Applications | Dr. Naved Malek I. | 2021 |

Ph.D. Awarded Students

19

| <u>Current Photo</u> | <u>Name of PhD Student</u> | <u>Email ID</u> | <u>Title of the thesis</u> | <u>PI name (Co-PI name)</u> | <u>Passing Year</u> |
|--|-------------------------------|--|---|---|---------------------|
|  | Dr. Ankit Shah | ias.shah2@gmail.com | <i>Ionic liquid based Simple and Complex Coacervates: Microreactors to Sequester Dyes and Curcumin from Aqueous Medium</i> | Dr. Naved Malek I | 2021 |
|  | Dr. Desai Mittal L. | dmittal721@gmail.com | <i>One-step Synthetic Approaches for Preparation of Fluorescent Hybrid Nanomaterials Characterization and Applications</i> | Dr. Suresh Kumar Kailasa | 2020 |
|  | Dr. Dharmesh Lathiya | lathiya.dharmesh@yahoo.com | <i>Biodiesel production from maize acid oil feedstock using various solid acid catalysts</i> | Dr. Kalpana Maheria (Prof. D. V. Bhatt) | 2020 |
|  | Dr. Jenifer Gabla | jenifergabla@gmail.com | <i>Green synthesis of biologically active drug like scaffolds using microporous and mesoporous zeolites via multi component reactions</i> | Dr. Kalpana Maheria | 2020 |
|  | Dr. Khushbu Patel | c.khushbu10@gmail.com | <i>Design of hybrid polymeric surface with anti-biofouling properties and their application in biomedicine and environment</i> | Dr. Suban K. Sahoo | 2020 |
|  | Dr. Azazahemad A. Kureshi | kureshi.azaz90@gmail.com | <i>Phytochemical investigation of Garcinia species for cytotoxic properties</i> | Dr. Premlata Kumari | 2020 |
|  | Dr. Sonia Lakhota | lakhotiasonia@gmail.com | <i>Lithium Preparation and characterization of thin-film nanocomposite (TFN) membrane and its application for water treatment</i> | Dr. Premlata Kumari | 2020 |
|  | Dr. Bhamore Jigna Rajeshkumar | jignabhamore@gmail.com | <i>Synthesis and characterization of ultra-small fluorescent nanoparticles for chemical sensing and bioimaging applications</i> | Dr. Suresh Kumar | 2019 |

Ph.D. Awarded Students

20

| <u>Current Photo</u> | <u>Name of PhD Student</u> | <u>Email ID</u> | <u>Title of the thesis</u> | <u>PI name (Co-PI name)</u> | <u>Passing Year</u> |
|--|-----------------------------------|--|--|--|---------------------|
|  | Dr. Amit G. Shirke | Amitshirke50@gmail.com | Vegetable oil-based polymer synthesis with detailed characterization and their applications. | Dr. Ketan C. Kuperkar (Dr. Bharatkumar Dholakiya) | 2019 |
|  | Dr. Bharatkumar B. Kanoje | Bharatkanoje4@gmail.com | Micellization behaviour of Conventional and Dimeric Surfactant in aqueous solution system: Characterization and their Applications. | Dr. Ketan C. Kuperkar (Dr. Jigisha Kamal Parikh) | 2019 |
|  | Dr. Nimisha Singh | Nimisha.singh01@gmail.com | Biocompatible nanoparticle for cancer drug and therapeutics by facilitating Nitric oxide release | Dr. Suban K. Sahoo | 2019 |
|  | Dr. Sargam Rajput | sargamrajput13@gmail.com | Modulating Interfacial and Micellar Properties of the Surfactants through External Additives Leading to Various nano-Aggregates | Dr. Naved Malek I. | 2019 |
|  | Dr. Mehul L. Savaliya | msehulsavaliya@gmail.com | Eco-friendly solid reinforced heterogeneous acid & alkali catalysts for the preparation of biodiesel using different feedstocks | Dr. Bharatkumar Dholakiya | 2017 |
|  | Dr. Jayanti S. Makasana | jaymakasana@gmail.com | Phytochemical Investigations of Clitoria Ternatea (L.), Aegle marmelos (L.) Corr. and Centella Asiatica (L.) Urb.: Important Medicinal Plants Used in Indian Traditional Medicine System | Dr. Bharatkumar Dholakiya (Dr. Narendra Gajbhiye) | 2017 |
|  | Dr. Jignesh Kumar V. Rohit Rathod | jvrsvnit@gmail.com | Molecular Assembly of Dithiocarbamate Derivatives on Metal Ag and Au Nanoparticles for Colorimetric Detection of Pesticides | Dr. Suresh Kumar | 2017 |
|  | Dr. Manoj Rathod | manoj.rathod13@gmail.com | Catalytic synthesis of biologically active compounds through multicomponent reaction | Dr. Kalpana Maheria (Dr. Suban K. Sahoo) | 2017 |

Ph.D. Awarded Students

21

| <u>Current Photo</u> | <u>Name of PhD Student</u> | <u>Email ID</u> | <u>Title of the thesis</u> | <u>PI name (Co-PI name)</u> | <u>Passing Year</u> |
|--|------------------------------|--|--|--|---------------------|
|  | Dr. Yogeshwar Suryawanshi | yogeshwarsuryawanshi@gmail.com | Synthesis of Noble Nanoparticles by Microwave Irradiated Solvothermal Technique and their Catalytic Applications | Dr. Smita Jauhari (Dr. Mousumi Chakraborty (DoChE)) | 2017 |
|  | Dr. Ashish Raychura | ashish.raychura@yahoo.com | A Renewable Approach Towards the Development of Wood Protective Polyurethane Coating from Vegetable Oil-Based Polyols | Dr. Smita Jauhari (Dr. Bharat Dholakiya) | 2017 |
|  | Dr. Utkarsh More | utkarshumore@gmail.com | Studies on the Micellar Properties of Cationic Gemini of Cationic Gemini Surfactants in the presence of 1-Alkyl-3-methylimidazolium bromide Ionic Liquids | Dr. Naved Malek I | 2017 |
|  | Dr. Zuber Vaid | zubervaid@yahoo.in | Aggregation behavior of 1-Alkyl-3-Vinylimidazolium Bromide Ionic Liquids In Aqueous Solution and Their Micellar Transition in the Presence of Different Additives | Dr. Naved Malek I. | 2017 |
|  | Dr. Vaibhavkumar ar N. Mehta | vai.mehta76@gmail.com | Functionalization of dithiocarbamate derivatives on metallic nanoparticles (Au and Ag) for colorimetric sensing of metal ions and green synthetic approach for preparation of carbon dots and their imaging applications | Dr. Suresh Kumar | 2016 |
|  | Dr. Gopal Chawada | gopalchawada.svnit@gmail.com | Environmentally Friendly Organic-Inorganic Hybrid Coatings for Corrosion Protection of Metal Alloys | Dr. Bharatkumar Dholakiya (Prof. V. M. Mannari) | 2015 |
|  | Dr. Darshak Bhatt | darshakbhatt13@gmail.com | Studies on ionic liquids - surfactants interaction phenomena in aqueous media and their applications | Dr. Kalpana C. Maheria (Dr. Jigisha Parikh) | 2015 |
|  | Dr. Karuna A. Rawat | karuna123.rawat@gmail.com | Organic framework on metal Au and Ag nanoparticles for colorimetric sensing of biomolecules and drugs | Dr. Suresh Kumar | 2015 |

Ph.D. Awarded Students

22

| <u>Current Photo</u> | <u>Name of PhD Student</u> | <u>Email ID</u> | <u>Title of the thesis</u> | <u>PI name (Co-PI name)</u> | <u>Passing Year</u> |
|--|----------------------------|--|--|---|---------------------|
|  | Dr. Amit B. Patel | amit.svnit10@gmail.com | <i>Chemical strategies towards the synthesis of rationally designed heterocycles and their pharmacological evaluations</i> | Dr. Premlata Kumari | 2015 |
|  | Dr. Ami Vyas | ami_bhatt@yahoo.co.in | <i>Adsorptive Studies on Palladium (II) and Platinum (IV) using Rice Husk and its Derivatives</i> | Dr. Smita Jauhari (Dr. Z. V. P. Murthy (DoChE)) | 2015 |
|  | Dr. Zubin Master | zrm17979@yahoo.com | <i>Thermodynamics and Transport Properties of Binary Liquid Mixtures Including Ionic Liquids</i> | Dr. Naved Malek I. | 2015 |
|  | Dr. Bhushan Choubisa | byc.1986@gmail.com | <i>Microbial Production of Lactic acid, Polylactic Acid (PLA) Synthesis and Its Application</i> | Dr. Bharatkumar Dholakiya (Dr. Mayank R. Patel) | 2014 |
|  | Dr. Mahesh H. Malani | maheshmalani.svnit@gmail.com | <i>Studies on Design, Synthesis and Biological Evaluation of Carbazole and Tetrazole based Heterocycles</i> | Dr. Bharatkumar Dholakiya | 2014 |
|  | Dr. Bhavesh D. Dhorajiya | bhavesh.orgchem@gmail.com | <i>Studies on Design, Synthesis and Biological Evaluation of Barbiturates and Thiobarbiturates Based Heterocyclic Scaffold</i> | Dr. Bharatkumar Dholakiya | 2014 |
|  | Dr. Tejas S. Gandhi | tejasgandhi1401@gmail.com | <i>Synthesis and Characterization of Sustainable Rigid Polyurethane Foam from Cashew Nut Shell Liquid</i> | Dr. Bharatkumar Dholakiya (Dr. Mayank R. Patel) | 2014 |
|  | Dr. Krunal Shah | reach.krunal@gmail.com | <i>Silica based solid acid catalysts for biodiesel synthesis from various oil feedstocks</i> | Dr. Kalpana Maheria (Dr. Jigisha Parikh) | 2014 |

Ph.D. Awarded Students

23

| <u>Current Photo</u> | <u>Name of PhD Student</u> | <u>Email ID</u> | <u>Title of the thesis</u> | <u>PI name (Co-PI name)</u> | <u>Passing Year</u> |
|--|----------------------------|--|---|---|---------------------|
|  | Dr. Bhupendra Mistry | bhupendra.mistry84@gmail.com | Synthesis, Characterization and Evaluation of Newly Synthesized Schiff Bases as Acid Corrosion Inhibitors for Mild Steel in 1N HCl | Dr. Smita Jauhari | 2014 |
|  | Dr. Aniruddha Rana | aniruddha.m.rana@gmail.com | Study on Synthesis and Biological Evaluation of Quinazoline-4(3H)-one, Thiazolidine-4-one, Rhodanine and S-triazine based Derivatives | Dr. Smita Jauhari (Prof. K. R. Desai (VNSGU)) | 2014 |
|  | Dr. Nikhil Parekh | nikhil.svnit123@yahoo.com | Synthesis of Quinoline, Benzoquinoline and Quinazoline based heterocyclic monoazo dyes and their applications | Dr. Kalpana Maheria | 2013 |
|  | Dr. Sunil Mistry | drsunilmistry@gmail.com | Zeolite Catalyzed Multicomponent Reactions for the Synthesis of Biologically Active Compounds | Dr. Kalpana Maheria | 2013 |
|  | Dr. Divyesh Patel | dkpatel11984@gmail.com | Antimicrobial and antimycobacterial studies of newly synthesized s-triazine and coumarin analogs | Dr. Premlata Kumari | 2013 |
|  | Dr. Medha Joshi | mbjoshi0316@gmail.com | Synthesis, Characterization and Material Application of Polyureas, Polyurethanes and Poly(Urea-Urethane)s. | Dr. Smita Jauhari (Prof. K. R. Desai (VNSGU)) | 2013 |
|  | Dr. Rahul Patel | rahul.svnit11@gmail.com | Studies of in vitro bioassay of newly synthesized 1,3,5-triazine and 1,3,4-oxadiazole derivatives | Dr. Premlata Kumari | 2011 |
|  | Dr. Niketan Patel | niketan.patel@kaust.edu.sa | Effect some Herbal Extracts on Acid Corrosion of Mild Steel Study by Gravimetric, D.C. electrochemical and A.C. Impedance Methods | Dr. Smita Jauhari | 2011 |

Ph.D. Ongoing Students

| <u>Current Photo</u> | <u>Name of PhD Student</u> | <u>Email ID</u> | <u>Title of the thesis</u> | <u>PI name (Co-PI name)</u> | <u>Status</u> |
|--|----------------------------|--|---|---|------------------------|
|  | Hem N. Naik | hem7896@gmail.com | Lithium Extraction, Isolation of Phytochemicals from plants of family Fabaceae and its Pharmacological activity | Dr. Smita Jauhari Dr. Ramavtar Meena (CSIR-CSMCRI)) | Ongoing |
|  | Dilip C. Kanjariya | kdilip3611@gmail.com | Hydrogen Synthesis and investigation of novel Heterocycles and its Pharmacological application | Dr. Smita Jauhari | Ongoing |
|  | Bhadresh K. Chabhadiya | cbk01101996@gmail.com | Sodium Carbon Synthesis, characterization and application of Quinoline containing Heterocyclic scaffolds | Dr. Smita Jauhari | Ongoing |
|  | Bhavika Mohite | bhavikamohite814@gmail.com | Lithium Hydrogen Synthesis and investigation of triazole based heterocyclic compounds | Dr. Smita Jauhari | Ongoing |
|  | Dhruv Naik | dhruvnaik070@gmail.com | Hydrogen Indol based Hetrocycles, their sysnthesis, and biological significance | Dr. Smita Jauhari | Ongoing |
|  | Meenakshi B. Paswan | meenakshipaswan2411@gmail.com | Carbon Microbial synthesis of lactic acid for poly(lactic acid)-based formulation in biomedical and agriculture applications. | Dr. Bharatkumar Z. Dholakiya | Synopsis Submitted |
|  | Nilam R. Gamit | nilamgamit00@gmail.com | Lithium Hydrogen Synthesis of Polyurethane from Cardanol: a bio-based building block for sustainable construction applications. | Dr. Bharatkumar Z. Dholakiya | Pre-synopsis Submitted |
|  | Gadhiya Chirag Nareshbhai | chiraggadhiya1234@gmail.com | Hydrogen Synthesis and Characterization of bio-based Polyurethane from vegetable oil and its Applications | Dr. Bharatkumar Z. Dholakiya | Ongoing |

Ph.D. Ongoing Students

| <u>Current Photo</u> | <u>Name of PhD Student</u> | <u>Email ID</u> | <u>Title of the thesis</u> | <u>PI name (Co-PI name)</u> | <u>Status</u> |
|----------------------|----------------------------|--|--|--|--------------------|
| | Nidhi G. Savani | nidhisavani727@gmail.com | Tung oil derived bio polyurethane for its different applications. | Dr. Bharatkumar Z. Dholakiya (Dr. Togati Naveen) | Ongoing |
| | Mansi Mistry | mansimistry999@gmail.com | Bio-Polyurethane derived from Hemp seed oil for diverse applications. | Dr. Bharatkumar Z. Dholakiya (Dr. Vimalkumar Prajapati) | Ongoing |
| | Busa Hiren Mansukhbhai | hirenbusa111@gmail.com | Bio-lubricants: Synthesis, Properties and Applications. | Dr. Bharatkumar Z. Dholakiya | Ongoing |
| | Rutvik Divyesh Joshi | rutujoshi429@gmail.com | Synthesis of Polyurethane from extracted Tobacco Seed Oil using heterogeneous acid catalyst and its application. | Dr. Bharatkumar Z. Dholakiya (Dr. Naved I. Malek) | Ongoing |
| | Ghonia Jay Rameshbhai | ghoniajay@gmail.com | Synthesis and Applications of Imidazole derivatives. | Dr. Bharatkumar Z. Dholakiya (Dr. Jigisha K. Parikh) | Ongoing |
| | Dharaben Jayeshbhai Joshi | joshid0825@gmail.com | Synthesis of Borophene, MXenes, Metal Oxide and Metal Nanostructures for Fluorescence Sensing Applications | Dr. Suresh Kumar (Dr. Naved I. Malek) | Thesis submitted |
| | Ghinaiya Nirav Vajubhai | ghinaiyan@gmail.com | Synthesis and characterization of fluorescent nanomaterial (perovskite, MoO _x , and Cu) for analytical and bioanalytical applications | Dr. Suresh Kumar | Thesis submitted |
| | Foziya Yusuf Vadia | foziyavadia123@gmail.com | Studies on sustainable approaches for the fabrication of carbon dots for pesticides and metal ions sensing applications | Dr. Suresh Kumar (Dr. Naved I. Malek) | Synopsis submitted |

Ph.D. Ongoing Students

| <u>Current Photo</u> | <u>Name of PhD Student</u> | <u>Email ID</u> | <u>Title of the thesis</u> | <u>PI name (Co-PI name)</u> | <u>Status</u> |
|--|----------------------------|--|---|--|--------------------|
|  | Vibhuti Sadhu | sadhuvibhuti@gmail.com | <i>Development of analytical methods with OD fluorescent nanomaterials for sensing applications</i> | Dr. Suresh Kumar | Synopsis submitted |
|  | Parini Surti | parini.surti@gmail.com | <i>Microbial fuel cells technology for sustainable textile effluent treatment</i> | Dr. Suresh Kumar (Dr. A. K. Mungray) | On-going |
|  | Mayur Patel | mayurmp.2812@gmail.com | <i>Novel nanostructure materials and their analytical applications</i> | Dr. Suresh Kumar | On-going |
|  | Harishita Goel | harshitagoel016@gmail.com | <i>Metal Nanoclusters in the Development of Green Analytical Methods for Sensing Applications</i> | Dr. Suresh Kumar | On-going |
|  | Singh Pooja | poojaguddansingh@gmail.com | <i>Synthesis and characterization of metal nitride nanostructures: Applications in analytical chemistry</i> | Dr. Suresh Kumar (Prof. Z. V. P. Murthy) | On-going |
|  | Juhi Raval | juhiraval65@gmail.com | <i>Quantification of bio-active molecules using fluorescent nanomaterials</i> | Dr. Suresh Kumar | On-going |
|  | Karthik Makwana | kartikpmakwana@gmail.com | <i>Perovskite nanostructures for sensing applications</i> | Dr. Suresh Kumar (Dr. Naved I. Malek) | On-going |
|  | Jamila Husain Kagdi | jamila9152@gmail.com | <i>Metal nanoparticles for pesticide sensors</i> | Dr. Suresh Kumar (Dr. V. N. Mehta, and Dr. S. Jha) | On-going |

Ph.D. Ongoing Students

| <u>Current Photo</u> | <u>Name of PhD Student</u> | <u>Email ID</u> | <u>Title of the thesis</u> | <u>PI name (Co-PI name)</u> | <u>Status</u> |
|--|----------------------------|--|---|---|---------------|
|  | Kanishk Bhardwaj | bhardwaj_kanishak@gmail.com | Synthesis of organic molecules with aiegeu property fo the sensing of biogene and toxic analytes | Dr. Suban K. Sahoo (Dr. Ritambhara Jangir) | ongoing |
|  | Yagnik Vegad | vegadyagnik29@gmail.com | Folic Acid Detection Using β -Cyclodextrin Functionalized Copper Nanoclusters and Vitamin B6 Cofactor Pyridoxal | Dr. Suban K. Sahoo | ongoing |
|  | Aditi Tripathi | tripathiaditi93@gmail.com | Smartphone-assisted cost-effective approach for detecting mercury(II) using papain stabilized fluorescent gold nanoclusters | Dr. Suban K. Sahoo | ongoing |
|  | Rajanee Nakum | nakumrajanee01@gmail.com | Advancing Bio-analyte Sensing by fluorescence: Nanomaterials and Organic Fluorophores in Research | Dr. Suban K. Sahoo | Ongoing |
|  | Dhvani Amratbhai Patel | pateldhvani2408@gmail.com | "Development of aggregation-induced emission luminogens for sensing applications" | Dr. Suban K. Sahoo | ongoing |
|  | Parth Vyas | pvyas1972@gmail.com | Pyrene scaffold as real time fluorescence turn on chemosensors for selective detection of metal ions and its aggregation-Induced emission enhancement | Dr. Suban K. Sahoo | ongoing |
|  | Khusbu Seth | khusbusheth1999@gmail.com | Aggregation-induced emission luminogens and application | Dr. Suban K. Sahoo | ongoing |
|  | Jyoti Sharma | jyotisharma21195@gmail.com | Fabrication of Zno nano structure-based composite materials for opto-electro chemical detection of heavy metal ions | Dr. Suban K. Sahoo | ongoing |

Ph.D. Ongoing Students

| <u>Current Photo</u> | <u>Name of PhD Student</u> | <u>Email ID</u> | <u>Title of the thesis</u> | <u>PI name (Co-PI name)</u> | <u>Status</u> |
|--|----------------------------|--|---|--|--------------------|
|  | Nildhara Parsana | nildhara.parsana@gmail.com | Deep Eutectic Solvent-based Eutectogel as a New Age Drug Delivery Vehicle | Dr. Naved Malek I. | Ongoing |
|  | tapas Patel | tapaspatel77@gmail.com | Photo-responsive Ionic Liquid based systems | Dr. Naved Malek I. | Ongoing |
|  | Hiral Ukani | hiralpatel1240@gmail.com | MOF based composite in various applications | Dr. Naved Malek I. | Ongoing |
|  | Ravi Pansuriya | ravipansuriya82@gmail.com | Ionic Liquid-based Hydrogel as Drug Delivery System | Dr. Naved Malek I. (Dr. Suresh Kumar Kailasa) | Ongoing |
|  | Ishani Pandya | ispandyaa97@gmail.com | MOF-based nanocomposite hydrogel: drug delivery and environmental remediation | Dr. Naved Malek I. | Ongoing |
|  | Vidhi Joshi | vidhijoshiuna@gmail.com | Stimuli Responsive Nanoaggregates as New Age Drug Carrier | Dr. Naved Malek I. (Dr. Mousumi Chakraborty) | Ongoing |
|  | Aayushi Lodhi | gayushilodhi9627@gmail.com | Studies on heterogeneous novel mesozeolite H- β catalysts for environmentally benign chemical transformations | Dr. Kalpana C. Maheria | Synopsis submitted |
|  | Meet Patel | patelmeet121343@gmail.com | Synthesis, characterization of inorganic/hybrid material and their application for the removal of contaminants from the water | Dr. Kalpana C. Maheria | Ongoing |

Ph.D. Ongoing Students

| <u>Current Photo</u> | <u>Name of PhD Student</u> | <u>Email ID</u> | <u>Title of the thesis</u> | <u>PI name (Co-PI name)</u> | <u>Status</u> |
|--|----------------------------------|--|--|-----------------------------|------------------|
|  | Bilal Mansuri | mansuribilal81@gmail.com | Catalyzed reactions for the Multicomponent Environmental synthesis of Benign Drug-like Molecules | Dr. Kalpana C. Maheria | Ongoing |
|  | Ayushi Patel | pataayu1808@gmail.com | Solid acid catalyzed organic transformation of biomass derived chemicals into value added chemicals | Dr. Kalpana C. Maheria | Ongoing |
|  | Mithil Kevadiya | mithil1221@gmail.com | Synthesis and characterization of micro, meso and macro porous materials for chemical transformation | Dr. Kalpana C. Maheria | Ongoing |
|  | Deep Patel | deepmpatel3496@gmail.com | Introduction to HY Zeolite and its Catalytic Applications | Dr. Kalpana C. Maheria | Ongoing |
|  | Kajal Patel | kajal.patel2722@gmail.com | Synthesis and investigation of new bacalain based bioactive compounds | Dr. Premlata Kumari | Thesis submitted |
|  | Mahesh Vaghasiya | mdvaghasiya9@gmail.com | Design, synthesis, and biological evaluation of novel sulfur-containing heterocyclic compounds | Dr. Premlata Kumari | Ongoing |
|  | Jigarkumar Vallabhbhai Mendapara | jmendapara20@gmail.com | Synthesis, characterization, and pharmacological activity of novel pyrrole derivatives through click reactions | Dr. Premlata Kumari | Ongoing |
|  | Riyakumari Mahendrabhai Tandel | riyatandel2424@gmail.com | Biogenic synthesis and functionalization of nanoparticles and its application in detection and water remediation | Dr. Premlata Kumari | Ongoing |

Ph.D. Ongoing Students

| <u>Current Photo</u> | <u>Name of PhD Student</u> | <u>Email ID</u> | <u>Title of the thesis</u> | <u>PI name (Co-PI name)</u> | <u>Status</u> |
|----------------------|-----------------------------|--|--|-----------------------------|---------------|
| | Shivangi Dineshbhai Makwana | shivangimakwana81995@gmail.com | Synthesis, characterization, and pharmacological activity of nitrogen-containing fused heterocycles | Dr. Premlata Kumari | Ongoing |
| | Hitesh Jayantibhai Purohit | hiteshpurohit33317@gmail.com | Synthesis, characterization, and pharmacological evaluation of benzisothiazolinone-based heterocycles. | Dr. Premlata Kumari | Ongoing |
| | Nitumani Tripathi | nitu.tripathi007@gmail.com | Underscoring the aqueous solution demeanor in Block Copolymer. | Dr. Ketan C. Kuperkar | Ongoing |
| | Yagnik Vora | voryyagnik22@gmail.com | Nanoscale self-assembly modulation of varied additives in deep eutectic solvents: Structural solvation and dynamics. | Dr. Ketan C. Kuperkar | Ongoing |
| | Tejash Desai | tejash_desai1982@yahoo.com | Insight into the micellization behavior, molecular interaction and thermodynamic assessment in surfactant system. | Dr. Ketan C. Kuperkar | Ongoing |
| | Virendra Prajapati | virenprajapati75@yahoo.com | Nanoscale generation self-assembly in aqueous amphiphilic. | Dr. Ketan C. Kuperkar | Ongoing |
| | Mayursing B. Girase | mbgirase042@gmail.com | Phase behavior, micellization and aggregation dynamics of surfactants in aqueous solution | Dr. Ketan C. Kuperkar | Ongoing |
| | Soliya sudha | Soliyasudha123@gmail.com | Transition metal-free C-H functionalization reactions | Dr. Ketan C. Kuperkar | Ongoing |

Ph.D. Ongoing Students

| <u>Current Photo</u> | <u>Name of PhD Student</u> | <u>Email ID</u> | <u>Title of the thesis</u> | <u>PI name (Co-PI name)</u> | <u>Status</u> |
|--|----------------------------|--|--|---|---------------|
|  | Satani Piyush | sPiyushsatani123@gmail.com | Lithium Transition metal and C-H functionalization reactions | Dr. Ketan C. Kuperkar | Ongoing |
|  | Kakadiya Harikrushn | harikrushn.kakadiya99@gmail.com | Hydrogen Cyclic voltammetry characterization in Deep Eutectic Solvents | Dr. Ketan C. Kuperkar | Ongoing |
|  | Shubham Kumar | shubhamkumar9087@gmail.com | Scandium Development and Applications of Materials based on Phosphate and COF-based composites | Dr. Ritambhara Jangir (Dr. Bharatkumar Dholakiya) | Ongoing |
|  | Ketan K. Maru | ketanmaru61@gmail.com | Lithium Synthesis and Applications of MOFs and MOF-based Composites: Innovations in Membrane Preparation, Catalysis, Wastewater Treatment, and Biosensing | Dr. Ritambhara Jangir (Dr. Sarita Kalla) | Ongoing |
|  | Ankita Pardiwala | ankitapardiwala4747@gmail.com | Hydrogen Synthesis of Polyoxomolybdate cluster based open framework material and Polyoxometalates (POMs) based composite and their various applications in medicine, catalysis, and wastewater treatment. | Dr. Ritambhara Jangir | Ongoing |
|  | Divya | Divyanain54m@gmail.com | Carbon Covalent Organic Frameworks Synthesis and their applications for water purification, catalysis and energy storage. | Dr. Ritambhara Jangir (Dr. Sarita Kalla) | Ongoing |
|  | Patel Monak Rameshbhai | monakpatel28@gmail.com | Lithium Transition metal catalyzed synthesis and functionalization of aromatic amines | Dr. Togati Naveen (Prof. Bharatkumar Z. Dholakiya) | Ongoing |
|  | Desai Bhargav Rasikbhai | bhargavdesai0303@gmail.com | Hydrogen Transition metal-catalyzed cross-coupling of boronic acid reaction | Dr. Togati Naveen (Prof. Bharatkumar Dholakiya) | Ongoing |

Ph.D. Ongoing Students

| <u>Current Photo</u> | <u>Name of PhD Student</u> | <u>Email ID</u> | <u>Title of the thesis</u> | <u>PI name (Co-PI name)</u> | <u>Status</u> |
|----------------------|-----------------------------------|--|---|---------------------------------------|---------------|
| | Arti Pravinbhai Ramani | artiramani8262@gmail.com | Transition metal-catalyzed functionalization of sulfonamides | Dr. Togati Naveen | Ongoing |
| | Akshay Bharodiya | akshayaucky@gmail.com | Microwave-assisted organic synthesis | Dr. Togati Naveen (Dr. Areti Sivaiah) | Ongoing |
| | Desai Bhavyesh Nikhil Kumar | Bhavyeshdesai42@gmail.com | Functionalization of Aldehydes | Dr. Togati Naveen | Ongoing |
| | Ravinkumar Sunilbhai Valand | ravinsvaland@gmail.com | Synthesis and spectroscopy studies of Triazole-Linked Fluorescent Conjugates as Receptors for metal ions | Dr. Areti Sivaiah | Ongoing |
| | Maheshkumar Dineshbhai Prajapati | Prajapatimahesh12389@gmail.com | Synthesis and characterization of fluorescent probes and their metal complex: Recognition studies of ions and molecules | Dr. Areti Sivaiah (Dr. Sarita Kalla) | Ongoing |
| | Arindam Mondal | arindammonda0505@gmail.com | Development of far-red fluorescence sensor for selective detection of a wide range of biological macromolecules. | Dr. Subrata Dutta | Ongoing |
| | Kidiyawala Akshaykumar Manojkumar | akshaykidiyawala8@gmail.com | Designing and development of hemicyanine-based fluorescence sensors for selective detection of biomolecules | Dr. Subrata Dutta | Ongoing |
| | Abdul Raheman | abdulraheman043@gmail.com | Peptide nucleic acids based far-red fluorescence sensor for selective detection of nucleic acids | Dr. Subrata Dutta | Ongoing |

Ph.D. Ongoing Students

| <u>Current Photo</u> | <u>Name of PhD Student</u> | <u>Email ID</u> | <u>Title of the thesis</u> | <u>PI name (Co-PI name)</u> | <u>Status</u> |
|--|----------------------------------|--|--|-----------------------------|---------------|
|  | Dheeraj | dheerajnehrak10@gmail.com | Catalytic aspects of Graphene oxide supported metal complex. | Dr. Lata Rana | Ongoing |
|  | Nafisa | nafisa30101997@gmail.com | Role of metal complexes as catalyst | Dr. Lata Rana | Ongoing |
|  | Shukla Dinesh Rakeshbhai | dshuk6561@gmail.com | Metal Organic Frameworks (MOFs) Synthesis and their Applications | Dr. Arup Kumar Ghosh | Ongoing |
|  | Khadayata Elesh Dhanjibhai | eleshkhadayata786@gmail.com | Imine-linkage-Based Covalent Organic Frameworks (COFs) with their applications | Dr. Arup Kumar Ghosh | Ongoing |

INSTRUMENTATION FACILITIES

34

RESEARCH LABORATORIES @ DOC



- Polymer & Phytochemistry
- Ionic Liquid
- Nano & Supramolecular chemistry
- Surface Chemistry
- Organic Synthesis & phytochemistry
- Catalysis and Ion exchange
- Functional Nanomaterials & Analytical Chemistry
- Biomaterial
- Catalysis and Synthetic Methodology
- Organocatalysis and materials chemistry
- Atmospheric Chemistry
- Supramolecular Bio/Nano Sensors
- Coordination chemistry
- Organic and Bioorganic

NAME OF INSTRUMENTS



Differential Scanning
Calorimeter



Benchtop NMR
60 MHz



Tensiometer



High Performance Liquid
Chromatography



Zeta size analyser



FT-IR
Spectrophotometer



Double beam UV-Visible
Spectrophotometer



Thermogravimetric Differential
thermal analyzer



Attenuated total
reflection -FTIR



Flash Chromatography

ACHIEVEMENTS (DEPARTMENT)

35

DST-FIST improvement of S&T infrastructure sponsored by Collaborative research project of two hundred three lakhs rupees for five years (19th Dec, 2022).

Principal Coordinators :

Dr. Smita Jauhari, Dr. Bharatkumar Dholakiya, Dr. Suresh Kumar, Dr. Suban K. Sahoo, Dr. Naved Malek, Dr. Kalpana Maheria, Dr. Premlata Kumari and Dr. Ketan C. Kuperkar

Total no. of Ph.D. awarded students: 56

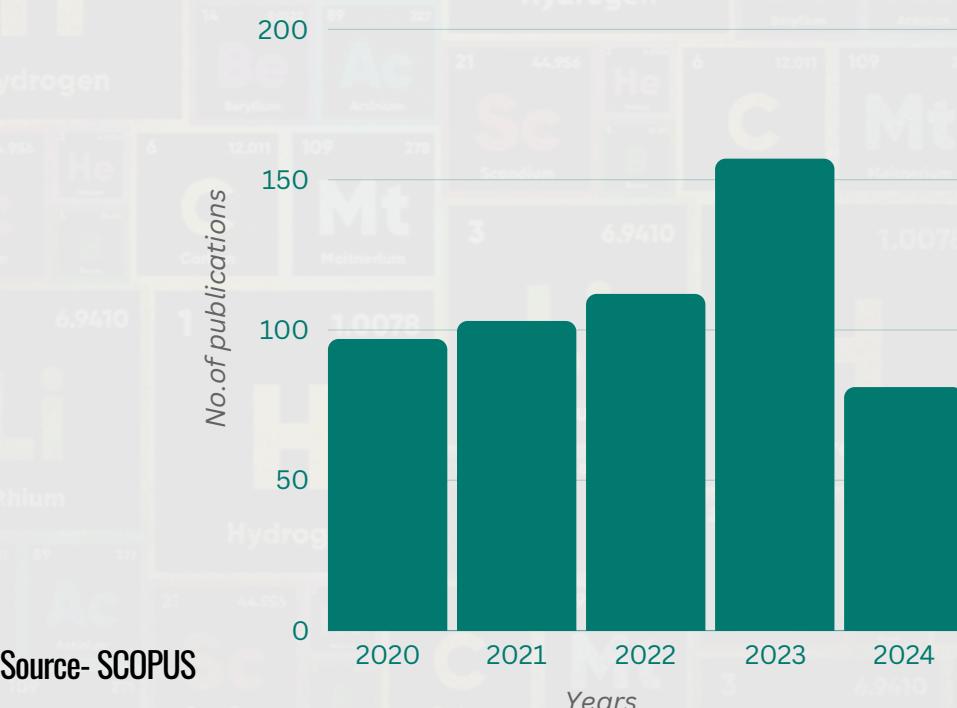
Total no. of Ph.D. ongoing students: 76

Total no. of projects completed: 18

Total no. of projects ongoing: 12

Total no. of publications till date: 1085

Total no. of publications in last five years: 550



PATENTS

Total no. of patents: 11

| Patent No. | Title of the Patent | Inventor(s) Name |
|--|--|--|
| Granted Process/Product Patents | | |
| 296833 | "3-halo derivatives of thiomaleic anhydride and process for the preparation thereof" | Dr. Bharat Dholakiya, Jigar Patel |
| 298644 | "Controlled release of therapeutic agents using drug impregnated polymer film" | Dr. Bharat Dholakiya, Bhusan Chubisa Mahendra Lakdawala |
| 390158 | "An improved process for the preparation of high molecular weight polylactic acid" | Dr. Bharat Dholakiya, Bhusan Choubisa Dr. Mayank Patel |
| 332732 | "Novel biologically active maleimide compounds and use thereof" | Dr. Bharat Dholakiya, Jigar Patel |
| 334762 | "Novel process for the preparation of furan 2, 5-dione derivatives" | Dr. Bharat Dholakiya, Jigar Patel |
| 387089 | Polymer mortar composite from post-consumer PET modified with MMA and POFA and process for preparation thereof" | Dr. Y. D. Patil, Bhagyshree Sarde Dr. Bharat Dholakiya |
| 480560 | "Cardanol based bio-polyol of formula (II) and process for preparation thereof" | Dr. Bharat Dholakiya, Nilam Gamit |
| 508289 | "Polymer mortar composite and a process for preparation thereof" | Dr. Y. D. Patil, Bhagyshree Sarde Dr. Bharat Dholakiya |
| 301613 | An improved process for the preparation of Dihydropyrimidin-2-ones | 1. Maheria Kalpana Chaturbhai 2. Mistry Sunilkumar Rameshchandra 3. Joshi Rakesh Rameshchandra 4. Sahoo Suban Kumar |
| 319508 | An improved process for the preparation of Diarylpyrimidin-2(1H)-Ones | 1. Maheria Kalpana Chaturbhai 2. Mistry Sunilkumar Rameshchandra |
| 101129644 | Apparatus and method of liquid nitrogen assisted spray ionization mass spectrometry | Hui-Fen Wu, Suresh Kumar Kailasa, Nazim Hassan. |
| 448736 | An Industrial one pot process for the preparation of Chloroxazone | Dr. Premlata Kumari Vaghasiya Mahesh Dungarshibhai |
| Filed Process/Product Patents | | |
| 202321089584 | Cardanol based sol-gel derived polyurethane polymer mortar (SGPM) composites and process for preparation thereof | Dr. Bharat Dholakiya, Nilam Gamit |
| Granted Design Patents | | |
| 363344-001 | Hydrogen Sulfide Gas Generator | Dr. Mahendra M. Lakdawala Kevadiya Hardik Popatbhai Dr. Bharat Dholakiya, Dr. G. M. Malik |
| 364383-001 | Orthopaedic Implant | Dr. Mahendra M. Lakdawala Kevadiya Hardik Popatbhai Dr. Bharat Z. Dholakiya, Dr. G. M. Malik |
| 376805-001 | Micro-Electrochemical Reactor | Dr. Mahendra M. Lakdawala Dr. Bharat Dholakiya, Dr. G. M. Malik Dr. Salma Mitchla, Dr. Dharmesh Mahajan Dr. Mayank Champaneriya |

DEPARTMENTAL EVENTS

37



(A Departmental Club)

Teacher's Day Celebrations

The Teacher's Day celebration was filled with heartfelt tributes and engaging activities to honor our educators. We appreciated the valuable contributions of our professors and showcased various performances by students. Teachers inspired us with their words, and each professor was felicitated. The event concluded on a high note with a cake cutting and refreshments, leaving a lasting impression on everyone.



Talk on the Pathway to SRFP



The talk on the pathway to SRFP (Summer Research Fellowship) in chemistry offered insights and guidance for students interested in research. Speakers, RamGopal Tiwari & Aniket Raj, SRFP recipients 2023, covered eligibility, application process, and benefits. They emphasized writing effective research proposals and choosing projects aligned with interests. The session cleared doubts, boosting students' confidence for future applications. Refreshments and an interactive session concluded the event.

Placement Talk-Federal Bank

The placement talk offered insights into career opportunities at Federal Bank, one of India's premier private sector banks. Speakers Ayushi Sharma and Poojaben Maheshwari, both placed at the bank, shared recruitment process details and preparation strategies. A lively discussion ensued about diverse career paths, and a Q&A session clarified audience doubts. Active participation made the event successful.

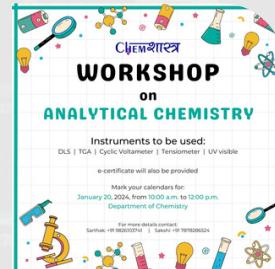


DEPARTMENTAL EVENTS

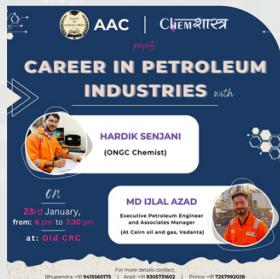
38

Workshop on “Analytical” Chemistry

The analytical chemistry workshop covered principles, techniques, and instrument applications like FTIR and UV. Speakers offered insights followed by hands-on demos, led by experienced instructors. Attendees gained practical skills in instrument operation and result interpretation.



Talk on Career in Petroleum Industries



The petroleum industry careers event, in collaboration with AAC, provided insights into diverse career opportunities and future prospects. Speakers discussed industry trends, technological advancements, and required competencies. Attendees benefited from networking opportunities and gained empowerment for informed career choices in the petroleum sector.

Workshop on “Computational” Chemistry and Molecular Docking

Led by Dr. Arup Kumar Ghosh and Dr. Suban Sahoo, the workshop focused on computational techniques crucial for drug discovery and molecular modeling. Attendees acquired practical expertise in molecular modeling principles and dynamic simulations. Interactive sessions enabled hands-on exploration, fostering a deeper understanding of computational methods.



Industrial Visit of 5 th Year Students



Department of Chemistry (DoC) organised an industrial visit for the final year students of Five Years Integrated M.Sc. Chemistry to **Colourtex Industries Pvt. Ltd.**, Unit No.-1, Gabheni Char Rasta, Sachin-Magdalla Highway (NH 53), GIDC Sachin, Surat, Gujarat. Guided by professionals, they explored operational processes, bridging theory with practice.

This hands-on experience ignited their passion and provided invaluable insights for their future careers.

Ph.D FELLOWSHIPS

39



YUVRANI M
MICHIGAN STATE
UNIVERSITY

PLACEMENT PROFILE



TANUJ SINGH
CAIRN OIL & GAS
VEDANTA LTD.



SHUBHAM KUMAR
CAIRN OIL & GAS
VEDANTA LTD.



HARSHIT MISHRA
CAIRN OIL & GAS
VEDANTA LTD.



PAVAN KUMAR
CAIRN OIL & GAS
VEDANTA LTD.



**RIPUNJAY
TANWAR**
ASIAN PAINTS



**TEJAVATH
RAJENDHAR**
ASIAN PAINTS



**HARSHIL
BHANDALI**
AARTI INDUSTRIES



**DEVASHISH
ROHIT**
AARTI INDUSTRIES



SAHIL SHARMA
UNACADEMY



SARVESH KUMAR
UNACADEMY



SAHIL KIRORIWAL
UNACADEMY



AMARENDRAG SINGH
UNACADEMY

PLACEMENT PROFILE



ADITYA SINGH
UNACADEMY



SUDHIR YADAV
UNACADEMY



RISHABH SINGH
PHYSICS WALLAH



ADARSH BHATT
PP SAVANI



SAWAI SINGH
PP SAVANI



NANDINI PRAJAPATI
SOLANCE ENERGY



POOJABEN MAHESHWARI
FEDERAL BANK



AYUSHI SHARMA
FEDERAL BANK



ADITYA TOMAR
KREA UNIVERSITY



PRIYAM PATEL
SGS INDIA PVT LTD.



BHUPENDRA KONKNI
SGS INDIA PVT LTD.



SUJEET KUMAR
MODI SCHOOL



AZHAR MAHMOOD
OPENINAPP LISTED INC



SMIT MORAWALA
UNACADEMY



UMAKANTH MAHESH
NARAYANA
ALLEN OVERSEAS



AKASH BONTHU
TALENT SERVE



VIVEK GUPTA
ALLEN OVERSEAS

PG INTERNSHIPS



Ramgopal Tiwari

I20CY007
RWTH AACHEN
UNIVERSITY
DAAD-WISE



Aniket Raj

I20CY019
Technical University of Munich
DAAD-WISE



Raj Singh

I20CY043
Friedrich Schiller
University Jena
Germany
DAAD-WISE



Aryan Shah

I20CY001
1.RWTH Aachen,
Germany , 2. IIT
Kharagpur



Rohit Jhajara

I20CY006
Future Sight



Daniyelbhai Valvi

I20CY033
Future Sight



Perikala Praveen

I20CY039
IIT Gandhinagar



Dharavath Mahesh

I20CY054
DRDO,Pune



Mayuk Joddar

I21CY019
MAX PLANCK INSTITUTE
FOR CHEMISTRY, MAINZ
DAAD-WISE



Neel Sharma

I21CY012
Technische Universität
Dresden
DAAD-WISE



Vaishnavi Singh

I21CY008
IIT Gandhinagar
SRFP



Paras Waykos

I21CY016
INSEAD Paris
(France), IISER Pune
(Summer Student
Program)



Abhishek Anand

I21CY048
IISER, BERHAMPUR



Aryendu .P

I21CY006
Iiser
Thiruvananthapuram



Yashwanth Raj

I21CY027
IIT, Bombay



Shubham singh

I21CY15
IIT Bombay



Yatharth kumawat

I21CY018
CSIR - National Institute
of Oceanography, Goa



Subhadeep Maity

I22CY041
IIT Guwahati, ICT
Mumbai HBCSE-TIFR



Abhinav Anand

I22CY044
Finlatics



Aditya Aryan

I22CY051
Nit Patna and NTPC



Sai jaswanth

I22CY024
IIT jodhpur



Kirubakar R

I21CY046
IIT Bombay

ACHIEVEMENTS (STUDENT)

42



Romi Sah
CATC Ncc camp



**Perikala
Praveen**

Volleyball (NIT Kurukshetra 2023),
Athletics (NIT Warangal 2023),



**Dhone
Anil Kumar**

Volleyball (NIT
Kurukshetra)



**Rohit
Jhajara**

Basketball (MNIT Jaipur 2022, 2023)
Interyear basketball (SVNIT Surat 2023)



**Daniyel
Valvi**

Played Kho-Kho at NIT
Warangal



**Tarjani
K Patel**

Participated in InterNIT
Volleyball Tournament
held at NIT Kurukshetra



**Paras
Waykos**

EBSB National NCC
Camp-Ahmedabad



**Devanshi
Lad**

Volley Ball (NIT
Kurukshetra)



**Rushika
Jain**

Basketball (NIT Jaipur)



**Ranjith
Nagavath**

Kho-Kho (NIT Warangal)

DEMOGRAPHICS

43



FINAL YEAR



Male

40



GENDER RATIO



Female

8

PLACEMENT STATISTICS

48

Total strength of
batch 2023

36

Total no. of students
opted for placements

29

Total number of
students Placed

80%

Placement

Avg. LPA of **7.53**

DYNAMIC TEAM

Faculty Coordinator T&P (2023-24)



Dr. Ketan C. Kuperkar

Student Coordinator T&P (2023-24)



Tanuj Singh
I19CY030



Sahil Sharma
I19CY055

Designer



Alige Shruthi
I22CY028

Content Writer



Aryendu.P
I21CY009



Neel Sharma
I21CY012

Surat is well connected by Railway to major cities like Bangalore, New Delhi, Mumbai, Chennai, Hyderabad, Ahmedabad, Jaipur, Lucknow, Bhopal, Indore etc.



SVNIT is located at a short distance of about 10 km from Surat Railway Station and can be easily commuted within 30 minutes.

SVNIT Surat is at a distance of just 8.5 Km from Surat International Airport. It takes roughly 20 minutes to reach the campus.



For more updates follow:

- https://www.instagram.com/tnp_chemistry_nitsurat
- https://www.instagram.com/chemshastra_nit_surat
- <https://www.linkedin.com/company/department-of-chemistry-nit-surat-training-placement>

रसायनिकी विभाग

DEPARTMENT OF CHEMISTRY

सरदार वल्लभभाई राष्ट्रीय प्रौद्योगिकी संस्थान, सूरत-395007, गुजरात, भारत

Sardar Vallabhbhai National Institute of Technology (SVNITSurat) - 395007, Gujarat, India
<https://www.svnit.ac.in/web/department/chemistry>

SVNIT, SURAT

