

1. Affiliation and Contact Information:



Dr. Jigneshkumar V. Rohit

Assistant Professor

Department of Chemistry,

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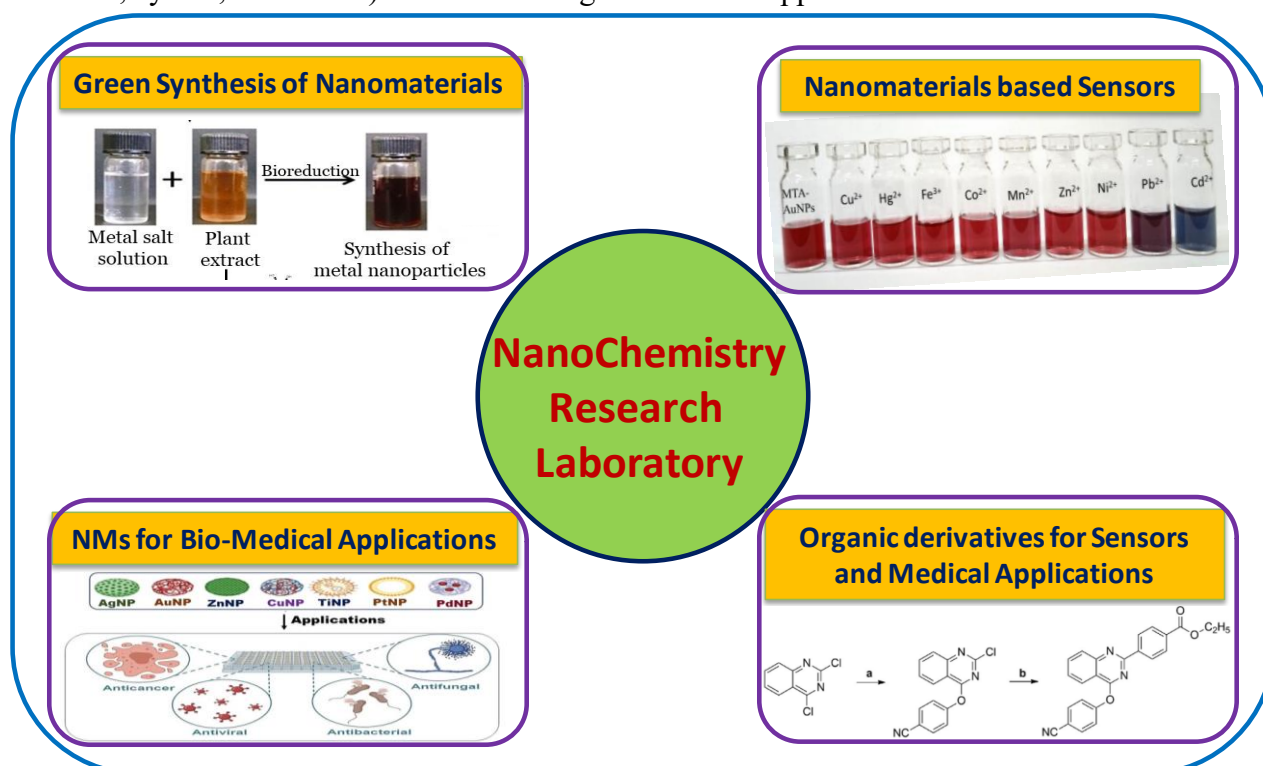


2. Researcher Identities

Researcher IDs	Link
Scopus ID	https://www.scopus.com/authid/detail.uri?authorId=55900743700
Orcid ID	https://orcid.org/0000-0002-2086-2287
Web of Science/ Clarivate ID	https://www.webofscience.com/wos/author/record/1249023
Google Scholar ID	https://scholar.google.co.in/citations?user=KR2raPYAAAAJ&hl=en
Vidwan ID	https://vidwan.inflibnet.ac.in/profile/140370

3. Research Interests:

My research group focuses on designing nanomaterials for agricultural, medical, and environmental applications. We are developing simple methodologies for preparing nanomaterials and tuning their optical properties for desirable applications. Our research includes (1) Development of simple analytical techniques to detect pesticides, heavy metals and veterinary drugs in water, soil and food samples using nanomaterials-based cost-effective sensors and (2) Development of green methods for the preparation of nanomaterials and their therapeutic use, including antimicrobial and anticancer agents, disease diagnosis (cellular imaging) and drug delivery. Simultaneously, we are working on the synthesis and modification of organic molecules (such as calixarene, cyclen, and indole) for their sensing and medical applications.



4. Educational Qualifications:

Degree	Year	Subject	University/Institute
Ph. D	2017	Chemistry Thesis Title: “Molecular Assembly of Dithiocarbamate Derivatives on Metal (Ag and Au) Nanoparticles for Colorimetric Detection of Pesticides” Research Supervisor: Dr. Suresh Kumar Kailasa	Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, Gujarat, INDIA
M. Sc	2011	Organic Chemistry	Sardar Patel University (SPU), Anand, Gujarat, INDIA
B. Sc	2009	Chemistry	Veer Narmad South Gujarat University, Surat, Gujarat, INDIA

5. Professional Experience:

Position	Period	Institution	Nature of work
Assistant Professor (Grade-I)	07-10-2025 – Till date	Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, Gujarat, INDIA	Teaching and Research
Assistant Professor (Grade-I)	04-08-2022– 06-10-2025	National Institute of Technology (NIT) Srinagar, Jammu and Kashmir, INDIA	Teaching and Research
Assistant Professor (Grade-II)	30-10-2018 – 04-08-2022	National Institute of Technology (NIT) Srinagar, Jammu and Kashmir, INDIA	Teaching and Research

6. Awards and Honors:

1. Received a scholarship from Elsevier Publication and TEQIP-II (SVNIT) to present his research work at “International Conference on Optical Chemical Sensors and Biosensors” held at Graz University of Technology, **Austria (EUROPE)** during 20th-23rd March 2016.
2. Received **Best Key Note Speaker Award** at International Summit and Conference on Material Science Nanotechnology & Bio Manufacturing Organized by Institut Kemahiran Tinggi Belia Negara, Sepang (Selangor), **Malaysia** during 25th -28th May 2021.

7. Administrative Experience

Position	Period	Institution	Nature of work
Faculty In-Charge Classrooms	02-11-2023-06-10-2025	National Institute of Technology (NIT), Srinagar, J&K, INDIA	Managing classroom allotment at the Institute level. Maintenance and Purchase related to classrooms.
Coordinator (M.Sc)	06-11-2024-06-10-2025	Department of Chemistry, National Institute of Technology (NIT), Srinagar, J&K, INDIA	Admission, Registration, Examination, and all other activities related to M.Sc.
Coordinator (B.Tech 1 st Year)	24-11-2021-06-10-2025	Department of Chemistry, National Institute of Technology (NIT), Srinagar, J&K, INDIA	Handling examination and all other activities of B.Tech 1 st Year at the Departmental level
In-Charge Time Table	04-03-2020-06-10-2025	Department of Chemistry, National Institute of Technology (NIT), Srinagar, J&K, INDIA	Managing the time tables of M.Sc. and B.Tech. at the Departmental level
Member NIRF Ranking Committee	27-09-2021–06-10-2025	National Institute of Technology (NIT), Srinagar, J&K, INDIA	Activities to secure a good NIRF rank for the Institute

8. Research Work Details:

7.1 Publication Details (Appendix – I & II)

International Journal Research and Review Paper Publications	26
Book chapters Publication	12
Total citations (as on April 2023): 1130 , h index: 17 , i10 index: 21 https://scholar.google.com/citations?hl=en&user=KR2raPYAAAAJ	

7.2 Research Guidance (Appendix – III & IV)

Ph. D (completed)	-
Ph. D (ongoing)	07
M. Sc (completed)	08
M. Sc (ongoing)	00

7.3 Sponsored Research Projects (Appendix – V)

Sponsored Research Project (completed)	-
Sponsored Research Project (ongoing)	02

7.1 Appendix-I (List of Research Paper Publications)

1. Imtiyaz Ahmad Lone, **Jigneshkumar V. Rohit***, A fluorescent nanohybrid sensor based on carbon dots encapsulated in a metal organic framework for highly selective and sensitive detection of mercury, **CrystEngComm** 27 (2025) 6742-6752 (IF: 2.6)
2. Rameez Ahmad Kumar, **Jigneshkumar V. Rohit***, Surface functionalized MXene as emerging 2D optical sensors for the monitoring of chemical and biological contaminants, **FlatChem** 53 (2025) 100922 (IF: 6.2)
3. Kizafa Aftab, Shahida Rashid, **Jigneshkumar V. Rohit***, Functionalization of 6-mercaptopyridine-3-carboxylic acid on gold nanoparticles for selective and sensitive detection of heavy metal cadmium, **Nano-Structures & Nano-Objects** 43 (2025) 101521
4. Imtiyaz Ahmad Lone, **Jigneshkumar V. Rohit***, Unveiling the potential of luminescent metal–organic frameworks as optical sensors for the detection of food contaminants, **Inorganica Chimica Acta** 587 (2025) 122830 (IF: 3.2)
5. Humairah Tabasum, Mohsina Mushtaq, Tariq Ahmad Sofi, Junaid Ahmad Paul, Basharat Ahmad Bhat, Akhtar H.Malik, **Jigneshkumar V. Rohit***, Fritillaria cirrhosa derived bio silver nanoparticles based nanobiopesticide: an effective antifungal agent against cobweb disease in mushroom crop, **Applied Nanoscience** 15 (2025) 29
6. Imtiyaz Ahmad Lone, **Jigneshkumar V. Rohit***, Carbon dots encapsulated metal-organic frameworks: An emerging optical sensors for monitoring of environmental pollutants, **Inorganic Chemistry Communications** 180 (2025) 114918 (IF: 5.4)
7. Shahida Rashid, **Jigneshkumar V. Rohit***, Molecularly imprinted polymer nanoparticles and imprinted nanocomposites based optical sensors for the detection of chemical pollutants, **Journal of Inorganic and Organometallic Polymers and Materials** (2025) DOI: 10.1007/s10904-025-03767-8 (IF: 4.9)
8. Humairah Tabasum, Basharat A. Bhat, Bashir A. Sheikh, Vaibhavkumar N. Mehta, **Jigneshkumar V. Rohit***, Emerging perspectives of plant-derived nanoparticles as effective antimicrobial agents, **Inorganic Chemistry Communications** 145 (2022) 110015. (IF: 5.4)
9. Vaibhavkumar N. Mehta, Nirav Ghinaiya, **Jigneshkumar V. Rohit**, Rakesh Kumar Singhal, Hirakendu Basu, Suresh Kumar Kailasa*, Ligand chemistry of gold, silver and copper nanoparticles for visual read-out assay of pesticides: A review, **Trends in Analytical Chemistry** 153 (2022) 116607. (IF: 12.0)

10. Amit B. Patel*, **Jignesh V. Rohit**, Development of 1,3,4-thiadiazole and piperazine fused hybrid quinazoline derivatives as dynamic antimycobacterial agents, **Polycyclic Aromatic Compounds** 42 (2022) 5991-6002 (IF: 2.6)
11. Rajat Singh, Preeti Thakur, Atul Thakur, Harish Kumar, Prince Chawla, **Jigneshkumar V. Rohit**, Ravinder Kaushik, Naveen Kumar*, Colorimetric sensing approaches of surfacemodified gold and silver nanoparticles for detection of residual pesticides: a review, **International Journal of Environmental Analytical Chemistry** 101 (2021) 3006-3022. (IF:2.5)
12. Mehul R. Kateshiya, Gincy George, **Jigneshkumar V. Rohit**, Naved I. Malek, Suresh Kumar Kailasa*, Ractopamine as a novel reagent for the fabrication of gold nanoparticles:Colorimetric sensing of cysteine and Hg^{2+} ion with different spectral characteristics, **Microchemical Journal** 158 (2020) 105212. (IF: 5.1)
13. Kiran Rana, Jigna R. Bhamore, **Jigneshkumar V. Rohit**, Tae-Jung Park, Suresh Kumar Kailasa*, Ligand exchange reactions on citrate-gold nanoparticles for parallel colorimetric assay of six pesticides, **New Journal of Chemistry** 42 (2018) 9080-9090. (IF: 2.5)
14. **Jigneshkumar V. Rohit** and Suresh Kumar Kailasa*, Simple and selective detection of pendimethalin herbicide in water and food samples based on the aggregation of ractopamine-dithiocarbamate functionalized gold nanoparticles, **Sensors and Actuators B: Chemical** 245 (2017) 541-550.(IF: 7.7)
15. Suresh Kumar Kailasa* and **Jigneshkumar V. Rohit**, Multifunctional groups of dithiocarbamate derivative assembly on gold nanoparticles for competitive detection of diafenthiuron, **Sensors and Actuators B: Chemical** 244 (2017) 796-805. (IF: 7.7)
16. Suresh Kumar Kailasa* and **Jigneshkumar V. Rohit**, Tuning of gold nanoparticles analytical applications with nitro and hydroxy benzyldindole-dithiocarbamates for simple and selective detection of terbufos and thiacloprid insecticides in environmental samples, **Colloids and Surfaces A: Physicochemical and Engineering Aspects** 515 (2017) 50-61. (IF: 5.4)
17. **Jigneshkumar V. Rohit**, Rakesh Kumar Singhal, and Suresh Kumar Kailasa*, Dithiocarbamate-calix[4]arene functionalized gold nanoparticles as a selective and sensitive colorimetric probe for assay of metsulfuron-methyl herbicide via non-covalent interactions, **Sensors and Actuators B: Chemical** 237 (2016) 1044-1055. (IF: 7.7)
18. **Jigneshkumar V. Rohit**, Hirakendu Basu, Rakesh Kumar Singhal, and Suresh Kumar Kailasa*, Development of p-nitroaniline dithiocarbamate capped gold nanoparticles-based microvolume UV-visible spectrometric method for facile and selective detection of quinalphos insecticide in environmental samples, **Sensors and Actuators B: Chemical** 237 (2016) 826-835. (IF: 7.7)
19. Karuna A. Rawat, Rutuben P. Majithiya, **Jigneshkumar V. Rohit**, Hirakendu Basu, Rakesh Kumar Singhal, and Suresh Kumar Kailasa*, Mg^{2+} ion as a tuner for colorimetric sensing of glyphosate with improved sensitivity via the aggregation of 2-mercapto-5-nitrobenzimidazole capped silver nanoparticles, **RSC Advances** 6 (2016) 47741-47752. (IF: 4.6)
20. Vaibhavkumar N. Mehta, **Jigneshkumar V. Rohit** and Suresh Kumar Kailasa*, Functionalization of silver nanoparticles with 5-sulfoanthranilic acid dithiocarbamate for selective colorimetric detection of Mn^{2+} and Cd^{2+} ions, **New Journal of Chemistry** 40 (2016) 4566-4574. (IF: 2.5)
21. Gaurang M. Patel, **Jigneshkumar V. Rohit**, Rakesh Kumar Singhal and Suresh Kumar Kailasa*, Recognition of carbendazim fungicide in environmental samples by using 4-aminobenzenethiol functionalized silver nanoparticles as a colorimetric sensor, **Sensors and Actuators B: Chemical** 206 (2015) 684-691. (IF: 7.7)

22. **Jigneshkumar V. Rohit** and Suresh Kumar Kailasa*, Cyclen dithiocarbamate functionalized silver nanoparticles as colorimetric probes for sensing of thiram and paraquat pesticides via host-guest chemistry, **Journal of Nanoparticle Research** 16 (2014) 2585-2600. (IF: 2.6)
23. **Jigneshkumar V. Rohit**, Jignasa N. Solanki and Suresh Kumar Kailasa*, Surface modification of silver nanoparticles with dopamine dithiocarbamate for selective colorimetric sensing of mancozeb in environmental samples, **Sensors and Actuators B: Chemical** 200 (2014) 219-226. (IF: 7.7)
24. Sweta K. Laliwala, Vaibhavkumar N. Mehta, **Jigneshkumar V. Rohit** and Suresh Kumar Kailasa*, Citrate-modified silver nanoparticles as a colorimetric probe for simultaneous detection of four triptan-family drugs, **Sensors and Actuators B: Chemical** 197 (2014) 254-263. (IF: 7.7)
25. **Jigneshkumar V. Rohit** and Suresh Kumar Kailasa*, 5-Sulfo anthranilic acid dithiocarbamate functionalized silver nanoparticles as a colorimetric probe for the simple and selective detection of tricyclazole fungicide in rice samples, **Analytical Methods** 6 (2014) 5934-5941. (IF: 2.6)
26. Nishith P. Gandhi, **Jigneshkumar V. Rohit**, Mungara Anil Kumar and Suresh Kumar Kailasa*, 4-Mercaptophenylacetic acid functionalized Mn²⁺-doped ZnS nanoparticles fluorescence quenching caused by the addition of Cu²⁺, **Research on Chemical Intermediates** 39 (2013) 3631-3639. (IF: 3.5)

7.1 Appendix-II (List of Book Chapter Publications)

1. Pawan Kumar, **Jigneshkumar V. Rohit***, **Book:** Comprehensive Analytical Chemistry: Analytical Applications of Graphene Oxide (ISBN-9780443296420), Chapter 3: Graphene oxide-based metal nanocomposites for colorimetric sensing applications, **Elsevier Publication**, 73-115, 2024.
2. Vaibhavkumar N. Mehta*, Juhi B. Raval, Suresh Kumar Kailasa, **Jigneshkumar V. Rohit**, Vimalkumar S. Prajapati, **Book:** Functionalized Carbon Nanomaterials for Theranostic Applications (ISBN: 9780128243664), Chapter-3: Application of functionalized carbon nanomaterials in therapeutic formulations, **Elsevier Publication**, 55-74, 2023.
3. **Jigneshkumar V. Rohit***, Vaibhavkumar N. Mehta, Amit B. Patel, Humairah Tabasum, Gourav Spolia, **Book:** Carbon Dots in Analytical Chemistry: Detection and Imaging (ISBN: 9780323983501), Chapter-9: Carbon dots-based fluorescence spectrometry for pesticides sensing, **Elsevier Publication**, 97-108, 2022.
4. Pranjal D. Modi*, Vaibhavkumar N. Mehta*, Vimalkumar S. Prajapati, Swati Patel, **Jigneshkumar V. Rohit**, **Book:** Carbon Dots in Analytical Chemistry: Detection and Imaging (ISBN: 9780323983501), Chapter-2: Bottom-up approaches for the preparation of carbon dots, **Elsevier Publication**, 15-29, 2022.
5. **Jigneshkumar V. Rohit***, Vaibhavkumar N. Mehta, **Book:** Liquid and Crystal Nanomaterials for Water Pollutants Remediation (ISBN: 9780367549879), Chapter-12: Liquid and Crystal Nanomaterials for Water Remediation: Synthesis, Application and Environmental Fate, **CRC Press**, 289-308, 2022.
6. **Jigneshkumar V. Rohit***, Vaibhavkumar N. Mehta, **Book:** Miniaturized Analytical Devices: Materials and Technology (ISBN: 9783527347582), Chapter-10: Microvolume UV – Visible Spectrometry for Assaying of Pesticides, **WILEY-VCH Publication**, 197-217, 2021.
7. Vaibhavkumar N. Mehta*, Vimalkumar S. Prajapati, **Jigneshkumar V. Rohit**, **Book:** Miniaturized Analytical Devices: Materials and Technology (ISBN: 9783527347582), Chapter-3: Miniaturized Analytical Technology in Agriculture, **WILEY-VCH Publication**, 49-70, 2021.
8. Suresh K. Kailasa*, Vaibhavkumar N. Mehta, **Jigneshkumar V. Rohit**, **Book:** Miniaturized Analytical Devices: Materials and Technology (ISBN: 9783527347582), Chapter-1: Miniaturized Capillary Electrophoresis for the Separation and Identification of Biomolecules, **WILEY-VCH Publication**, 01-19, 2021.

9. Suresh Kumar Kailasa*, Tae-Jung Park, **Jigneshkumar V. Rohit**, Janardhan Reddy Koduru, **Book:** Nanoparticles in Pharmacotherapy (ISBN: 9780128165041), Chapter - 14: Antimicrobial activity of silver nanoparticles, **Elsevier Publication**, 461-484, 2019.
10. Suresh Kumar Kailasa*, **Jigneshkumar V. Rohit**, Rakesh Kumar Singhal, **Book:** Nanobiosensors (ISBN-9780128043011), Chapter 16: Plasmonic nanoparticles and quantum dots in the identification of inorganic and organic contaminants in food samples, **Elsevier Publication**, 677-711, 2016.
11. Suresh Kumar Kailasa, Hui-Fen Wu* and **Jigneshkumar V. Rohit**, **Book:** Graphene Science Handbook: Applications and Industrialization (ISBN-9781466591332), Chapter 9: Graphene-Based Laser Desorption/ Ionization Mass Spectrometry for Bioanalytical Applications, **CRC Press**, 105-124, 2016.
12. Suresh Kumar Kailasa, **Jigneshkumar V. Rohit**, Hui-Fen Wu*, **Book:** Planar Chromatography - Mass Spectrometry (ISBN-9781498705882), Chapter 15: Combination of Thin-Layer Chromatography with Laser Desorption Ionization-and Electrospray Ionization– Mass Spectrometric Techniques for Screening of Organic Compounds, **CRC Press**, 251-275, 2015.

7.2 Appendix-III (Ph. D Students Guidance, Ongoing)

Sr. No.	Name of Student	Admission No.	Admission Year	Research Area
1.	Masood Ahmad Reshi	2024PHSCHM003	2024	New Admission
2.	Shahida Rashid Reshi	2022PHACHM008	2022	MIP Nanoparticles and Nanocomposite for Sensing Applications
3.	Imtiyaz Ahmad Lone	2022PHACHM012	2022	Nanomaterials encapsulated MOFs as Optical Sensors
4.	Mohsina Mushtaq	2022PHACHM014	2022	Enhancing Efficiency of Himalayan Herbs for Medical Applications
5.	Rameez Ahmad Kumar	2022PHACHM015	2022	Functionalized Mxene as 2D Nanosensors
6.	Pawan Kumar	2022PHACHM017	2022	Modification of Carbon Dots for Sensing and Imaging Applications

7.2 Appendix-IV (M. Sc Students Guidance, Ongoing-Completed)

Sr. No.	Name of Student	Admission No.	Completion Year	Title of Thesis
1.	Waseem Ahmad Najar	2023MSCHM007	June-2025	Carbon Dots synthesized from o-Phenylene diamine and Citric Acid: A Fluorescent Platform for Chemical Sensing
2.	Rahat Roohi	2023MSCHM009	June-2025	Visual Detection of Pesticides Using Green Synthesized Silver Nanoparticles from <i>Nelumbo nucifera</i>
3.	Tazeem-un-Nisha	2022MSCHM001	June-2024	Schiff Base functionalised gold nanoparticles as optical Sensor for selective and sensitive detection of thiachlorpyrid Pesticide
4.	Tahira Rahim	2022MSCHM013	June-2024	Himalayan herb (<i>Aconitum heterophyllum</i>) derived Bio Silver Nanoparticles and their Antibacterial Applications
5.	Pooja Saini	2021MSCHM014	June-2023	Plant (<i>Delphinium cashmirianum</i>) derived prepration of silver nano particles and their antimicrobial activity against plant pathogens

6.	Kizafa Aftab	2021MSCHM025	June-2023	6-mercaptopyridine-3-carboxylic acid functionalized gold nano particles for selective and sensitive detection of heavy metal Cadmium
7.	Gourav Spolia	2020MSCHM012	June-2022	2-Mercapto-4-methyl-5-thiazoleacetic acid Functionalised Gold nanoparticles as Optical Sensor for selective detection of Heavy metal Cadmium in water bodies
8.	Humairah Tabasum	2020MSCHM024	June-2022	Plant (<i>Fritillaria cirrhosa</i> D. Don) based preparation of silver nanoparticles (AgNPs) and their antimicrobial applications

7.3 Appendix-V (Sponsored Research Projects, Ongoing)

Sr. No.	Sponsoring agency	File No.	Sanctioned Amount	Sanctioned Date	Title of Project
1.	UGC-DAE CSR	CRS/2022-23/02/803	15.08 (Lakh)	15-05-2023	Nanoparticles as smart optical sensors: Development of green synthesis routes and Application in detection of pesticides at agriculture field
2.	Ministry of Coal	CMPDI/S&T /CU-64	53.21 (Lakh)	01-04-2025	Coal to Chemical Sensors: Conversion of low-grade coal to carbon dots-based smart sensing strips for on-site monitoring of heavy metals in water bodies around the coal fields

9. Research Collaborations:

1. Bhabha Atomic Research Center (BARC), Mumbai, India
2. Bharat Coking Coal Limited, Dhanbad, Jharkhand, India
3. S.V. National Institute of Technology (SVNIT), Surat, Gujarat, India
4. National Institute of Technology, Jamshedpur, Jharkhand, India
5. Sher-e-Kashmir University of Agricultural Sciences and Technology, Srinagar, J&K, India
6. University of Kashmir, Srinagar, J&K, India
7. Navsari Agriculture University, Navsari, Gujarat, India

10. Reviewer of Reputed Journals:

1. Materials Today Chemistry
2. Inorganic Chemistry Communications
3. Journal of Heterocyclic Chemistry
4. Journal of Radioanalytical and Nuclear Chemistry
5. Journal of the Indian Chemical Society

11. Conference/Workshop/STC Organized:

Sr. No.	Role	Category of Programme	Title of Programme	Duration
1.	Coordinator	Short Term Course (STC)	Chemistry of Advanced Functional Materials (CAFM-2020)	05 Days (21-09-2020 – 25-09-2020)
2.	Coordinator	Short Term Course (STC)	Recent Advances in Chemical Sciences (RACS-2019)	05 Days (08-07-2019 – 12-07-2019)

12. Conference/Workshop/STC: Invited Talk/Presentation

Conference Invited Talk/Presentations

1. Delivered an **Invited Talk** on “Functionalization of 6-mercaptopyridine-3-carboxylic acid on gold nanoparticles for simple and selective detection heavy metal cadmium” at International Conference on Polymer and Nanomaterials (ICPN-2025) Organized by **Mahatma Gandhi University, Kottayam (Kerala), India**, during 21st -23rd March 2025.
2. **Presented** a paper on “Schiff base functionalized gold nanoparticles as optical sensor for selective and sensitive detection of thiachlorid pesticide” at 2nd International Conference on Advances in Energy, Environment for Sustainable Development” Organized by Department of Chemistry, **Siksha ‘O’ Anusandhan** (Deemed to be University) during 28th-29th March, 2025.
3. Delivered an **Invited Talk** on “Advantages of Nanomaterials in Spectroscopic Analysis” at National Conference On Modern Evolution of Material and Chemical Science (MEMC-2023) Organized by **Parul University, Vadodra, Gujarat, India** during 6th -7th January 2023.
4. **Presented** a paper on “Metallic nanoparticles as simple analytical tool for determination of environment pollutant: An updated review” at 2nd Virtual International Conference on Chemical Sciences in Sustainable Technology and Development Organized by Applied Chemistry Department, **S.V. National Institute of Technology, Surat (Gujarat), India**, during 24th -26th November 2021.
5. Delivered an **Invited Talk** on “Advantages of Nanomaterials in Spectroscopic Analysis” at Second DAE Symposium on Current Trends in Analytical Chemistry (CTAC-2021) Organized by **Bhabha Atomic Research Center (BARC), Mumbai, India** during 20th -23rd October 2021.
6. Delivered an **Invited Talk** on “Use of Nanomaterials in Spectroscopic Analysis” at 7th International Conference on Nanotechnology for batter living (NBL-2021) Organized by Department of Physics, **National Institute of Technology, Srinagar, J&K, India** during 7th – 11th September, 2021.
7. Delivered a **Key Note Talk** on “Nanomaterials in Spectroscopic Analysis” at International Summit and Conference on Material Science Nanotechnology & Bio Manufacturing Organized by **Institut Kemahiran Tinggi Belia Negara, Sepang (Selangor), Malaysia** during 25th -28th May 2021.
8. Delivered an **Invited Talk** on “Benefits of Nanomaterials in Spectroscopic Analysis” at International online conference on Nano materials Organized by **Mahatma Gandhi University, Kottayam (Kerala), India**, during 9th -11th April 2021.
9. **Presented** a paper on “Nanoparticles as optical probe to determine veterinary drug residues in animal-derived food samples: A Review” at Virtual International Conference on Chemical Sciences in Sustainable Technology and Development Organized by Applied Chemistry Department, **S.V. National Institute of Technology, Surat (Gujarat), India**, during 1st-3rd December 2020.
10. Delivered **oral presentation** on “Nanoparticles as colorimetric sensors for analysis of pesticides” in 5th International Conference on Nanotechnology for batter living (ICNBL-2019) held at **National Institute of Technology, Srinagar, J&K, India** during 7th – 11th April, 2019.
11. **Presented** a paper on “Simple and selective detection of pendimethalin herbicide in water and food samples based on the aggregation of ractopamine-dithiocarbamate functionalized gold nanoparticles” in International Conference on Chemical Sciences in New Era (ICCSNE) held at **Pacefic Academy of Higher Education and Research, Udaipur, India** during 5th-6th October, 2018.
12. Presented **Poster** on “Multi-functional groups of dithiocarbamate derivative assembly on gold nanoparticles for competitive detection of diafenthuron insecticide” in the International Conference on Supramolecules and Forensic Nanotechnology (ICSFN-2018) held at **Gujarat Forensic Science University, Gandhinagar, Gujarat, India** during 23rd-24th February, 2018.

13. Delivered **Short Talk** on “Molecular assembly of dithiocarbamate-calix[4]arene on gold nanoparticles for selective colorimetric sensing of metsulfuron-methyl herbicides in environmental water and food samples” in 13th Europt(r)ode – International Conference on Optical Chemical Sensors and Biosensors (EUROPT[R]ODE-2016) held at **Graz University of Technology, Graz, AUSTRIA** during 20th -23th March, 2016.
14. Presented **poster** on “Citrate-modified silver nanoparticles as a colorimetric probe for simultaneous detection of four triptan-family drugs” in the International Conference on Electron Microscopy & XXXV Annual Meeting of Electron Microscope Society of India (EMSI-2014) held at **Delhi University, New Delhi, India** during 9th -11th July, 2014.
15. Presented **poster** on “Modification of silver nanoparticles with dopamine dithiocarbamate for selective colorimetric sensing of mancozeb” in the Indian Analytical Science Congress (IASC 2013) held at **International Center, Dona-Paula, Goa, India** during 15th -17th August, 2013.

Workshop/Expert Talk

1. Delivered an **Invited Talk** on “Applications of Nanomaterials in Medical, Agricultural, and Environmental Sciences”, organized by Shrimad Rajchandra Vidyapeeth, Dharampur (Valsad), Gujarat, India, on 23rd January 2025.
2. Delivered an **Invited Talk** on “Career Opportunities in Chemistry” Organized by **N. K. Desai Science and Commerce College, Pardi (Valsad), Gujarat, India** on 22nd January 2025.
3. Delivered an **Invited lecture** on “Medical, Agricultural, and Environmental Applications of Nanomaterials” Organized by **B.K.M. Science College, Valsad, Gujarat, India** on 22nd January 2025.
4. Delivered an **Expert lecture** on “Nanomaterials for Agricultural, Medical, and Environmental Applications” Organized by Department of Physics, **Uka Tarsadia University, Bardoli, Surat, India** on 17th January 2025.
5. Delivered an **Expert Talk** on “Nanomaterials based test kit to determine the presence of pesticides in food samples” at Two Week High-End Workshop on “Nanotechnology in Agri-Food System-Replete with opportunities” Organized by Division of Plant Pathology, **Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir (SKUAST-K), Srinagar, J&K, India** during 22nd February – 7th March 2023.
6. Delivered an **Expert Talk** on “Use of Nanomaterials in Spectroscopic Analysis” at One Week Training Program on materials characterization techniques Under Synergistic Training program Utilizing the Scientific and Technological Infrastructure (STUTI)-2, Organized by Department of Physics, **National Institute of Technology, Srinagar, J&K, India** during 30th May – 5th June 2022.
7. Delivered an **Expert Talk** on “Advantages of Nanomaterials in Spectroscopic Analysis” at One Week Training Program on R&D Equipment Under Synergistic Training program Utilizing the Scientific and Technological Infrastructure (STUTI)-1, Organized by Department of Physics, **National Institute of Technology, Srinagar, J&K, India** during 20th – 26th May 2022.
8. Delivered an **Expert Talk** on “Opportunity in Chemistry for Girls” at Virtual Lecture (under Role Model Interaction Series) to Vigyan Jyoti Scholars of **Jawahar Navodaya Vidyalaya, Ganderbal, J&K, India** on 24th July 2021.
9. Delivered an **Expert Talk** on “Advantages of Nanomaterials in Spectroscopic Analysis” at Online Short Term Training Programme (STTP) on Advanced Analytical Techniques in Chemistry, Organized by Applied Chemistry Department, **S.V. National Institute of Technology, Surat (Gujarat), India**, during 26th -30th October 2020.
10. Delivered an **Expert Talk** on “Opportunity in Chemistry” at live Webinar Organized by **V.S. Patel College of Arts and Science Billimora (Gujarat), India** on 29th October 2020.

11. Delivered an **Expert Talk** on “Chemistry and You” at Chem-Conclave-2020 Organized by **Science College Dakor (Gujarat), India** during 12th-17th October 2020.

13. Training Program Attended:

1. Attended **online training** on “Active Learning and Digital Pedagogy for Chemical Science & Engineering Education” organized at **Indian Institute of Technology (IIT), Hyderabad, India** during 20th – 22nd November 2020.
2. Attended **Short Term Course (STC)** on “Recent Advancement in Nanoscience and Nanotechnology (RANN-2020)” Organized by Department of Physics, **National Institute of Technology, Srinagar, J&K, India** during 24th – 28th August 2020.
3. Attended **Faculty Development Program (FDP)** on “Outcome Based Education” Organized by Department of Mechanical Engineering, **National Institute of Technology, Srinagar, J&K, India** during 18th – 22nd May 2019.
4. Attended **Faculty Development Program (FDP)** on “Pedagogy” Organized by **National Institute of Technology, Srinagar, J&K, India** during 1st – 5th April 2019.
5. Attended **Short Term Training Program (STTP)** on “Particle Technology: Characterization and Modeling of Particulate Materials (PT-CMPT-2016)” organized by Department of Chemical Engineering, **S.V. National Institute of Technology, Surat, Gujarat, India** during 1th-5th August, 2016.
6. Attended **Short Term Training Program (STTP)** on “Interfacial Engineering and Nanotechnology for Sustainable Environment (IENSE 2015)” organized by Department of Chemical Engineering, **S.V. National Institute of Technology, Surat, Gujarat, India** during 10th -14th August, 2015.
7. Attended **Short Term Training Program (STTP)** program on “Advanced Analytical Techniques for Materials Characterization (AATMC 2015)” organized by Applied Chemistry Department, **S.V. National Institute of Technology, Surat, Gujarat, India** during 23rd -27th February, 2015.
8. Attended One Week “**Sixth Schools on Analytical Chemistry (SAC-6)**” organized by Board of Research in Nuclear Science (BRNS) and Association of Environmental Analytical Chemistry of India (AEACI) at **Bhabha Atomic Research Center (BARC), Mumbai, India** during 13th -20th May, 2013.

14. Countries visited for Conference/Research:

1. Austria (Europe)

15. Memberships in Scientific Societies:

1. Association of Environmental Analytical Chemistry of India

16. Research Group Photos:



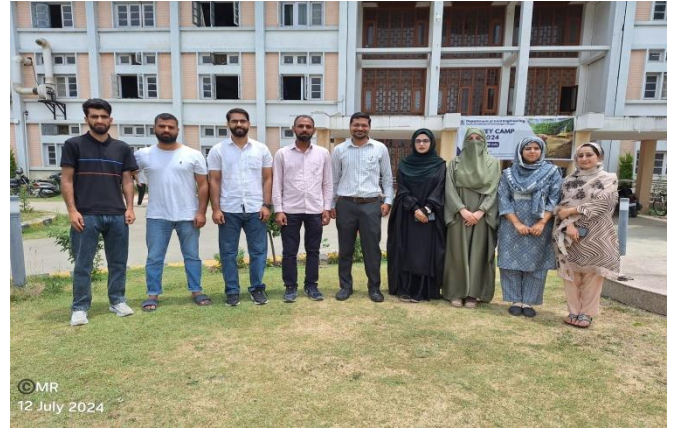
2021



2022



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2024



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