



Name: Prof. (Dr.) Pallavi Jain
Head-Student Welfare

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Area or Subject: Chemistry

Affiliation: SRM Institute of Science and Technology,
Delhi-NCR Campus, Modinagar-201204 U.P.

Education

B.Ed	Science	CCS University, 2021
Ph.D	Coordination Chemistry	Banasthali Vidyapith, Rajasthan, 2018
M. Tech	Chemical Technology (Oil Technology)	Harcourt Butler Technological University, Kanpur, 2004
M.Sc.	Physical Chemistry	CCS University, 2001

Industrial Experience

Chemical Consultant in **Century Chemicals, Hapur** from December 2004-August 2006 (1.5 years)

Academic Experience

Assistant Professor, SRM IST, DELHI-NCR Campus, August 2006-January 2022.
Head-Chemistry, SRM IST, DELHI-NCR Campus, June 2018-September 2022.
Associate Professor, SRM IST, DELHI-NCR Campus, February 2022-March 2025.
Head-B.Tech Ist Year, SRM IST, DELHI-NCR Campus, May 2023-March 2024.
Professor, SRM IST, DELHI-NCR Campus, April 2025

Additional Responsibilities

- NAAC Coordinator (Criteria 2) at Institute level
- UHV Coordinator of NCR Campus
- Enrollment Coordinator at NCR campus for all courses
- Proctorial Board Member
- Anti-ragging Committee member
- Women Grievance Cell member
- DRC-Chairman of Chemistry, June 2018- March 2024
- Core member of Event Management Team
- Hostel Committee Core Member, Feb 2025

Research Interests

Coordination Chemistry, Analytical Chemistry and Transition Metal Complexes

Editor

Scientific Reports (Springer Nature)

Selected Publications

1. Synthesis, Properties, and Applications of Aminoquinoline-Derived Schiff Bases and Metal Complexes, **Russian Journal of Bioorganic Chemistry**, 52, 10 (2026) DOI:[10.1134/S1068162025601880](https://doi.org/10.1134/S1068162025601880) **Impact Factor: 1.7**
2. Advancing drug solubility and precision delivery with next-generation nanocarriers: Recent innovations, opportunities, and challenges, **Nano Trends**, 13, 100183 (2026) DOI:10.1016/j.nwnano.2026.100183
3. Recent advances in electrode materials for high-performance supercapacitor applications, **Journal of Energy Storage** 146, 120016 (2026) DOI: 10.1016/j.est.2024.110698 **Impact Factor: 9.8**
4. EMs functionalized GO in sensing of Dinotefuran: Computational, Electrochemical and Experimental approaches, **Journal of Molecular Structure** 1352, 144487 (2026) DOI:10.1016/j.molstruc.2025.144487 **Impact Factor: 4.7**
5. An insight for the interaction of EMs of aspirin with GO through multi-facet technique, **Journal of Molecular Liquids** 437, 128490 (2025) DOI:10.1016/j.molliq.2025.128490 **Impact Factor: 5.3**
6. Recent Advances in COF-Based Strategies for Dye Pollution Remediation: Materials Design, Mechanistic Insight, and Future Outlook, **Separation and Purification Technology**, 379, 134816 (2025) DOI: 10.1016/j.seppur.2025.134816 **Impact Factor: 9**
7. Dry Reforming of Methane Over Nickel-based Catalyst on Mg-Stabilized Zirconia Support: A Pathway to Sustainable Syngas Production, **ChemistrySelect** 10 (32), e03577 (2025), DOI: 10.1002/slct.202503577 **Impact Factor: 2.0**
8. Advanced MOF-Based Materials for Adsorptive and Photocatalytic Removal of Emerging Organic Pollutants from Wastewater, **Applied Materials Today**, 46, 102865, (2025) DOI:10.1016/j.apmt.2025.102865 **Impact Factor: 6.9**
9. 3d-Transition Metal Complexes of a Tridentate ligand: Synthesis, Characterization, Physico-chemical studies, Antimicrobial activity, In Silico Molecular docking and ADME studies, **Chemistry Africa** 8, pages 1851–1867(2025) DOI:10.1007/s42250-025-01310-3 **Impact factor 2.3**
10. 2-((2-mercaptobenzylidene)amino)pyridin-3-ol Schiff base derived Mn(II), Co(II), Ni(II), and Cu(II) metal chelates: Synthesis, antimicrobial, antioxidant, thermo-kinetics, molecular docking, and in silico ADMET studies, **Chemistry Africa** (2025) DOI:[10.1007/s42250-025-01309-w](https://doi.org/10.1007/s42250-025-01309-w) **Impact factor 2.3**
11. Recent Advancements in Synthesis and Applications of Covalent Organic Frameworks, **Applied Materials Today**, 44, 102694, (2025) DOI:10.1016/j.apmt.2025.102694 **Impact Factor: 7.2**
12. A multifaceted Approach to Explore the formation of EM of Paracetamol with Improved solubility and its composite with Graphene Oxide, **Journal of Molecular Liquids** 425, 127220 (2025) DOI:10.1016/j.molliq.2025.127220 **Impact Factor: 5.3**
13. New development of triaminepyrimidine derived tridentate Schiff's base ligand and its Mn(II), Co(II), Ni(II), Cu(II) complexes: Synthesis, spectral, molecular docking, DFT, *in silico* ADMET and biological screening, **Applied Organometallic Chemistry** 30, e70076 (2025) DOI:10.1002/aoc.70076 **Impact Factor: 4.1**
14. A comparison of Thapsigargin and Remdesivir in inhibition of Mpro of nCoV using molecular docking molecular dynamics simulations, **Vietnam Journal of Chemistry** (2025) Accepted Impact Factor: 1.3
15. GO modified with amino-acid based EMs to sense Noscapine using experimental and computational approaches, **Microchemical Journal**, 212, 113103 (2025). DOI: 10.1016/j.microc.2025.113103 **Impact Factor: 4.9**
16. A Mini Review on Electrochemical Nano-biosensors in Detection of Drugs/Pesticides. **Indian Journal of Microbiology** 65, 216–234 (2025). DOI:[10.1007/s12088-024-01303-9](https://doi.org/10.1007/s12088-024-01303-9) **Impact Factor: 2.1**
17. Synthesis, Characterization, Biological activity, DFT, Molecular Docking and ADME Studies of Metal (II) Complexes of a Bidentate Schiff's Base (E)-4-chloro-2-((2-hydroxy-3-

- methoxybenzylidene)amino)benzoic acid, **Journal of Dispersion Science and Technology**, 1-14 (2025) DOI: 10.1080/01932691.2025.2461124 **Impact Factor: 1.9**
18. Binding studies between Dinotefuran and Bovine Serum Albumin Using Multiple Analytical Approaches, **ChemistrySelect** 9, e202402687 (2024) DOI:10.1002/slct.202402687 **Impact Factor: 2.0**
 19. A multifaceted approach to investigate interactions of thifluzamide with haemoglobin, **International Journal of Biological Macromolecules**, 232, 136736 (2024) DOI: 10.1016/j.ijbiomac.2024.136736 **Impact Factor: 7.7**
 20. Recent progress in the synthesis of C-S bond via sulfonyl hydrazides, **Journal of Sulfur Chemistry** (2024) DOI: 10.1080/17415993.2024.2420796 **Impact Factor: 2.1**
 21. An insight for the interaction of Aceclofenac with hemoglobin using spectroscopic, electrochemical & in silico approaches, **Discover Electrochemistry** 1, 8 (2024). DOI:10.1007/s44373-024-00008-4
 22. Synthesis, Characterization, Biological, ADMET, and Molecular Docking Studies of Transition Metal Complexes of Aminopyridine Schiff Base Derivative, **Chemistry and Biodiversity**, e202401101 (2024) DOI: 10.1002/cbdv.202401101 **Impact Factor: 2.3**
 23. Computational Insights for interactions between NsP2 and NsP3 of CHIKV and Hormones through DFT computations and Molecular Dynamics Simulations, **Chemistry and Biodiversity**, e202401241 (2024). DOI: 10.1002/cbdv.202401241 **Impact Factor: 2.3**
 24. Analytic and In Silico Methods to Understand the Interactions between Dinotefuran and Haemoglobin, **Chemistry and Biodiversity**, e202400495 (2024) DOI:10.1002/cbdv.202400495 **Impact Factor: 2.3**
 25. Exploring Bioinspired designed DES for their acetylene sensing capabilities via DFT calculations and Molecular Dynamics simulations, **Journal of Solution chemistry** (2024) DOI:10.1007/s10953-024-01407-2 **Impact Factor:1.4**
 26. Composite Nanoarchitectonics based on Graphene Oxide in Energy Storage and Conversion: Status, Challenges & Opportunities, **Journal of Inorganic and Organometallic Polymers and Materials**, (2024) DOI:10.1007/s10904-024-03154-9 **Impact Factor: 2.23**
 27. Eutectic mixtures of APIs: A way to improve the physiochemical properties and oral bioavailability of the drugs, **chemistryselect** (2024) DOI:10.1002/slct.202401319 **Impact Factor: 4.0**
 28. An updated review on 1,2,3-/1,2,4-Triazoles: Synthesis and diverse range of biological potential, **Molecular Diversity** (2024) DOI: 10.1007/s11030-024-10858-0., **Impact Factor: 3.8**
 29. Analytic and In Silico Methods to Understand the Interactions between Dinotefuran and Haemoglobin, **Chemistry and Biodiversity**, (2024) DOI:10.1002/cbdv.202400495. **Impact Factor: 2.9**
 30. Significant Increase in Dipole Moment of Graphene on Functionalization: DFT Calculations and Molecular Dynamics Simulations, **ACS Omega** (2024), DOI:10.1021/acsomega.4c00173 **Impact Factor: 4.132**
 31. Investigate the significance of DES to enhance the solubility of nescapine: DFT calculations, MD simulations, and experimental approach, **Ionics** (2024). DOI:10.1007/s11581-023-05359-3 DOI: 10.1021/acsomega.4c00173 **Impact Factor: 2.8**
 32. Exploring the Molecular Interactions between Acyclovir and Hormones: Insights from Density Functional Theory Calculations, **ChemistrySelect**, 8, e202303320 (2023) DOI:10.1002/slct.202303320 **Impact Factor: 2.23**
 33. In silico study on antidiabetic and antioxidant activity of bioactive compounds in Ficus carica L, **Journal of Biomolecular Structure and Dynamics**, (2023) DOI:10.1080/07391102.2023.2240425 **Impact Factor: 4.4**

34. Investigate the ability of deep eutectic solvent (ChCl-glycerol) to sense the sulphur dioxide using density functional theory calculations and molecular dynamics simulations, **Journal of Molecular Liquids**, 388 (2023) DOI: 10.1016/j.molliq.2023.122720 **Impact Factor: 6**
35. Recent advances in synthesis of heterocyclic Schiff base transition metal complexes and their antimicrobial activities especially antibacterial and antifungal, **Journal of Molecular Structure** DOI:10.1016/j.molstruc.2023.136346. **Impact Factor: 3.8**
36. Bioactive Thiosemicarbazone Coordination Metal Complexes: Synthesis, Characterization, Theoretical analysis, Biological Activity, Molecular Docking and ADME analysis, **Chemistry and Biodiversity**, (2023) DOI:10.1002/cbdv.202300760. **Impact Factor: 2.27**
37. Eutectic Mixtures to Enhance the Solubility of Active Pharmaceutical Ingredients: Density Functional Theory and Infrared Spectroscopy Approaches, **ChemistrySelect**, 8, e202300824 (2023) DOI: 10.1002/slct.202300824. **Impact Factor: 2.23**
38. Synthesis, antibacterial and antifungal activities of Schiff base rare earth metal complexes: a review of recent work, **Journal of Coordination Chemistry** (2023). DOI:10.1080/00958972.2023.2231608. **Impact Factor: 1.87**
39. In vitro, In silico, ADME and Theoretical Analysis of Mn(II) and Co(II) Complexes Derived from Methyl-(Z)-N'-Carbamothioylcarbamohydrazone Schiff Base Ligand, **Chemistry and Biodiversity**, (2023) DOI:10.1002/cbdv.202300042. **Impact Factor: 2.27**
40. Exploration of DFT and TD-DFT Computation to investigate the interaction between paracetamol and lithium or its compounds, **Journal of Molecular Liquids**, (2023) DOI:10.1016/j.molliq.2023.122114. **Impact Factor: 6.633**
41. Investigate the designing of eutectic mixture using DFT computation and evaluate their biological potency using molecular docking, **Journal of Molecular Liquids**, 381, 121723(2023) DOI: 10.1016/j.molliq.2023.121723. **Impact Factor: 6.633**
42. An investigation to understand the correlation between the experimental and density functional theory calculations of noscopine, **Journal of Physical Organic Chemistry**, e4502 (2023) DOI:10.1002/poc.4502. **Impact Factor: 2.155**
43. An Investigation for the interaction of Gamma Oryzanol with the Mpro of SARS-CoV-2 to combat COVID-19: DFT, Molecular docking, ADME and Molecular Dynamics Simulations, **Journal of Biomolecular Structure and Dynamics**, 41, 1919–1929(2023) DOI:10.1080/07391102.2022.2029770 **Impact Factor: 4.4**
44. Pharmacological aspects of Co(II), Ni(II) and Cu(II) schiff base complexes: An insight, **Results in Chemistry**, 5, 100849 (2023). DOI: 10.1016/j.rechem.2023.100849. **Impact Factor: 2.3**
45. A comparative study of 5- fluorouracil, doxorubicin, methotrexate, paclitaxel for their inhibition ability for Mpro of nCoV: Molecular docking and molecular dynamics simulations, **Journal of Indian Chemical Society**, 99(12), 100790 (2022).DOI:10.1016/j.jics.2022.100790. **Impact Factor: 3.2**
46. A Review on Interactions between Amino Acids and Surfactants as Well as Their Impact on Corrosion Inhibition, **ACS Omega**, 7(51), 47471-47489 (2022) DOI:10.1021/acsomega.2c03629 **Impact Factor: 4.132**
47. An update on Graphene Oxide: Applications and toxicity, **ACS Omega**, (2022) DOI: 10.1021/acsomega.2c03171. **Impact Factor: 4.132**
48. Polymeric membranes as Sustainable Material for Water Desalination: A review, **Desalination and Water Treatment**, 269, 1-20 (2022) DOI: 10.5004/dwt.2022.28753. **Impact Factor: 1.25**
49. An Update on Synthesis, Properties, Applications and Toxicity of the ILs, **Journal of Molecular Liquids**, 364, 119989 (2022) DOI:10.1016/j.molliq.2022.119989. **Impact Factor: 6.165**
50. DFT Calculations, Molecular Docking and QSAR investigation for the formation of Eutectic Mixture based on Thiourea and Salicylic acid, **Journal of Molecular Liquids**, 362, 119650 (2022) DOI: 10.1016/j.molliq.2022.119650. **Impact Factor: 6.165**

51. Investigate oxoazolidine-2, 4-dione based eutectic mixture via DFT calculations and SAR, **Journal of Indian Chemical Society**, 99, 100570 (2022) DOI: 10.1016/j.jics.2022.100570. **Impact Factor: 3.2**
52. Co(II) and Ni(II) Complexes of a Heterocyclic Ligand: Synthesis, Characterization, Docking and Biological Activity, **Iranian Journal of Science and Technology: Transaction A**, 46, 793–805(2022) DOI: 10.1007/s40995-022-01312-7. **Impact Factor: 1.553**
53. An insight of Nanomaterials in Tissue Engineering from Fabrication to Applications, **Tissue Engineering and Regenerative Medicine**, 19, 927–960 (2022) DOI: 10.1007/s13770-022-00459-z. **Impact Factor: 4.169**
54. An *In Silico* investigation for acyclovir and its derivatives to fight the COVID-19: Molecular docking, DFT calculations, ADME and td-Molecular dynamics simulations, **Journal of Indian Chemical Society**, 99, 100433 (2022) DOI:10.1016/j.jics.2022.100433. **Impact Factor: 3.2**
55. In Silico Evaluation of Binding of 2-Deoxy-D-Glucose with Mpro of nCoV to Combat COVID-19, **Pharmaceutics** 14(1), 135 (2022). DOI: 10.3390/pharmaceutics14010135. **Impact Factor: 6.321**
56. Hunting the Main Protease of SARS-CoV-2 by Plitidepsin: Molecular docking and Temperature dependent Molecular Dynamics Simulations, **Amino acids**, 54(2), 205–213 (2022). DOI:10.1007/s00726-021-03098-1. **Impact Factor: 3.520**
57. An Insight of Novel Eutectic Mixture between Thiazolidine-2,4-dione and Zinc Chloride: Temperature dependant DFT Approach, **Journal of Physical Organic Chemistry**, 35(3), e4305 (2022) DOI: 10.1002/poc.4305. **Impact Factor: 2.155**
58. An insight for the interaction of drugs (acyclovir/ganciclovir) with various ionic liquids: DFT calculations and molecular docking, **Journal of Physical Organic Chemistry**, 35(1), e4287 (2022) DOI: 10.1002/poc.4287. **Impact Factor: 2.155**
59. Assembly of Cerium Impregnated Pectin/Silica-Gel bioplumeric material for effective utilization for fluoride adsorption studies, **Materials Today: Proceedings**, 50, 273–281 (2022) DOI:10.1016/j.matpr.2021.06.327. **SNIP: 0.575**
60. Exploring the effect of temperature on inhibition of non-structural protease 3 of Chikungunya virus using molecular dynamics simulations and thermodynamics parameters, **Journal of Molecular Liquids**, 335, 116164 (2021) DOI: 10.1016/j.molliq.2021.116164. **Impact Factor: 6.165**
61. A review targeting the infection by CHIKV using computational and experimental approaches, **Journal of Biomolecular Structure and Dynamics**, 40, 8127-8141 (2022) DOI: 10.1080/07391102.2021.1904004. **Impact Factor: 4.4**
62. Promising iron(II) complexes of curcumins: designing, density functional theory, and molecular docking, **Journal of Physical Organic Chemistry**, 43, e4196 (2021) DOI: 10.1002/poc.4196. **Impact Factor: 2.155**
63. Cytotoxic T-lymphocyte elicited therapeutic vaccine candidate targeting cancer against MAGE-A11 carcinogenic protein, **Bioscience Reports**, 40, BSR20202349 (2021) DOI:10.1042/BSR20202349. **Impact Factor: 3.840**
64. Ni(II) and Cu(II) complexes of bidentate thiosemicarbazone ligand: Synthesis, structural, theoretical, biological studies and molecular modeling, **Applied Organometallic Chemistry**, 34 (9), e5736 (2020). DOI: 10.1002/aoc.5736. **Impact Factor: 4.105**
65. Antitussive noscopine and antiviral drug conjugates as arsenal against COVID-19: a comprehensive chemoinformatics analysis, **Journal of Biomolecular Structure and Dynamics**, 1-16 (2020) DOI: 10.1080/07391102.2020.1808072. **Impact Factor: 4.4**

66. Assessing the nanotechnology on the grounds of costs, benefits, and risks, **Beni-Suef University Journal of Basic and Applied Sciences**, 9, 63 (2020) DOI: 10.1186/s43088-020-00085-5. **SNIP: 0.924**
67. Dynamic imine bond-based chitosan smart hydrogel with magnified mechanical strength for controlled drug delivery, **International Journal of Biological Macromolecules**, 160, 489-495(2020) DOI: 10.1016/j.ijbiomac.2020.05.221. **Impact Factor: 6.953**
68. Experimental and theoretical studies of Mn(II) and Co(II) metal complexes of a tridentate Schiff's base ligand and their biological activities, **Applied Organometallic Chemistry**, 34(2), e5371 (2020) Fsar. **Impact Factor: 4.105**
69. Biological Applications of Co(II) and Ni(II) Complexes of Semicarbazones and Thiosemicarbazones, **Asian Journal of Chemistry**, 31, 1-8 (2019). DOI:10.14233/ajchem.2019.21475 **SNIP: 0.255**
70. Prospects of Biologically Active Schiff's Base Ligand and Metal Complexes in Drug Discovery, **Advanced Science, Engineering and Medicine**, 11, 144-154(2019)DOI: 10.1166/ asem.2019.2302.
71. Antibacterial Screening of Nitrogen and Sulphur Donor Atom Containing Methylcarbamothiosemicarbazone and its Mn(II) and Co(II) Complexes: Synthesis, Spectroscopic Approach, Molecular Modeling, **Iranian Journal of Science and Technology: Transaction A**, 43(2), 477-487(2019) DOI:10.1007/s40995-018-0573-1. **Impact Factor: 1.553**
72. Synthesis and spectroscopic study of biologically active tridentate Schiff's base ligand 2-Acetyl-5-methyl-furanthiosemicarbazone and its Mn(II) and Co(II), Ni(II) and Cu(II) complexes, **Iranian Journal of Science and Technology: Transaction A**, 42(2), 557-565 (2018) DOI: 10.1007/s40995-016-0140-6. **Impact Factor: 1.553**
73. Synthesis, Spectroscopic Approach, Biological Screening and Geometrical Optimization of Bidentate Schiff's Base Ligand and their Mn(II) and Co(II) Complexes, **Asian Journal of Chemistry**, 30(7), 1664-1670 (2018) DOI:10.14233/ajchem.2018.21347. **SNIP: 0.255**
74. FT-IR analysis on the leaves of Meizotropispellita, **Asian Journal of Microbiology, Biotechnology & Environmental Sciences**, 19(1), 185-188 (2017). **SNIP: 0.365**
75. Role of digital learning, virtual labs and classrooms in Applied sciences, **International Journal of Research and Analytical Reviews**, 5, 256-261, 2018. (E-ISSN 2348 –1269)
76. Computational Linguistics - A Futuristic Approach, **International Journal of Research and Analytical Reviews**, 5, 274-279, 2018. (E-ISSN 2348 –1269)
77. Synthesis, IR, EPR, UV-Visible characterization and in vitro antimicrobial activity of macrocyclic Schiff's base and its metal complexes of Mn(II) and Co(II), **World Journal of pharmacy and Pharmaceutical sciences**, 3(10) 953-964 (2014).
78. Schiff's Base Ligands and their transition metal complexes as Antimicrobial agents, **Journal of Chemical, Biological and Physical Sciences**, 4(3), 1946-1964 (2014).
79. An Overview on Evaluation of Biological Activity of Quinazoline Based Heterocycles, **Turkish Journal of Engineering, Science and Technology**, 3, 56-61 (2013).
80. Women Entrepreneurship in India: An overview **International Journal of IT and Management**, ISSN: 2249-0558 3(12), 208-219 (2013).
81. Study of Environmental awareness among the Science teachers at Secondary Level, **International Journal of IT and Management**, ISSN: 2249-0558, 3(12), 220-233 (2013).

Book Published

1. Structural and Biological Applications of Schiff Base Metal Complexes, Eds: Pallavi Jain, Prashant Singh (2023) **CRC Press, Taylor and Francis Group**, ISBN 9781032271255

2. Biosensors based on Graphene, Graphene Oxide & Graphynes for Early Detection of Cancer, Eds: Pallavi Jain, Prashant Singh, Kamlesh Kumari, Chandrabhan Verma, Anirudh Pratap Singh Raman (2024) **CRC Press, Taylor and Francis Group**, ISBN 9781032792798
3. Waste Management for Smart Cities, Eds: Pallavi Jain, Sunil Kumar Yadav, Ishaani Priyadarshini (2025) **Springer Singapore** ISBN 978-981-97-8255-0.
4. Towards Green Chemical Processes: Strategies and Innovations Eds: Pallavi Jain, Sapna Ragav, Anil (2025) **Springer Nature** ISBN 978-3-031-94090-3
5. Applications of Covalent Organic Frameworks for Environmental Remediation Eds: Pallavi Jain, Sapna Raghav (2025) **CRC Press, Taylor and Francis Group** ISBN 9781032996677

Books under Process

1. **Eutectic mixtures in pharmaceuticals: Strategies for enhancing drug solubility and bioavailability** Eds: Kamlesh Kumari, Madhur babu singh, Pallavi Jain, Prashant Singh (2025) **Bentham Science**
2. **Electrochemical Sensing Platforms: Theory, Techniques and Applications** Eds: Dinesh Kumar, Sapna Ragav, Pallavi Jain, Ritu Punali (2025) **Bentham Science**
3. **Next-Generation Green Solvents: Emerging Roles of Deep Eutectic Systems** Eds: Pallavi Jain, Sapna Raghav, Vishwajit Chavda (2025) **CRC Press, Taylor and Francis Group**
4. **Hydrophobic Deep Eutectic Solvents: Synthesis to Applications**, Eds: Prof. Nagendra Kumar Kaushik, Madhur Babu Singh, Prof. Pallavi Jain, Prof. Prashant Singh, Dr. Kamlesh Kumari (2025) **CRC Press, Taylor and Francis Group**

Book Chapters Published

1. Deep Eutectic Solvents for Inorganic Synthesis Applications In: Ketan Kuperkar, Dinesh Kumar, Sapna Raghav, Anil Kumar, Mohd Shahid (eds) **Deep Eutectic Solvents Volume 1: Fundamentals and Applications**, 207-225, 2026 Springer Nature. DOI:10.1007/978-3-032-03801-2_8, ISBN: 9783032038012
2. Deep Eutectic Solvents: A Sustainable Approach to Modern Chemistry “History, Classification, and Synthesis of DES” In: Ketan Kuperkar, Dinesh Kumar, Sapna Raghav, Anil Kumar, Mohd Shahid (eds) **Deep Eutectic Solvents Volume 1: Fundamentals and Applications**, 1-25, 2026, Springer Nature. DOI:10.1007/978-3-032-03801-2_1, ISBN: 9783032038012
3. Carbon dioxide conversion and utilization with covalent organic framework In: Pallavi Jain, Sapna Raghav (eds) **Applications of COFs in Environmental Remediation**, CRC Press, Taylor and Francis Group, 225-236, 2025, DOI:10.1201/9781003605386-11, ISBN: 9781003605386
4. Characterization Methods for Covalent Organic Frameworks In: Pallavi Jain, Sapna Raghav (eds) **Applications of COFs in Environmental Remediation**, CRC Press, Taylor and Francis Group, 73-89, 2025, DOI:10.1201/9781003605386-3, ISBN: 9781003605386
5. Green Chemical Processes: An Introduction. In: Jain, P., Raghav, S., Jangir, A.K. (eds) **Towards Green Chemical Processes: Strategies and Innovations**. Intelligent Systems Reference Library, 277, 1-21, 2025. Springer, Cham. https://doi.org/10.1007/978-3-031-94090-3_1
6. Integration of Renewable Energy source into chemical production In: Pallavi Jain, Sapna Ragav, Anil Janghir (eds) **Towards Green Chemical Processes: Strategies and Innovations**, Intelligent Systems Reference Library, 277, 129-140, 2025. Springer, Cham. https://doi.org/10.1007/978-3-031-94090-3_6

7. Applications of 2D Materials in Electrochemical Energy Storage In: Sapna Raghav and Rekha Sharma, 2D Materials: Fundamentals, Fabrication, and Applications, Engineering Materials 181-204 **Springer Nature**, 2025 DOI: 10.1007/978-981-96-8586-8_8
8. Properties and corrosion behaviours of different types of superalloys In: Inamuddin, Fundamentals and Applications of Superalloys, **Materials Research Forum LLC, USA** 178, 95-108, 2025 DOI:10.21741/9781644903698-6 .
9. Mesoporous materials for solid-phase extraction In: Inamuddin, Arwa Alrooqi, Amal Alshehri, Mohammad Abu Jafar Mazumder (eds) Mesoporous Materials: Synthesis, Properties and Allied Applications, **Materials Research Forum LLC, USA** 173, 203-221, 2025 DOI: 10.21741/9781644903452-8.
10. Advancement of materials for Lithium Batteries In: Dinesh Kumar, Rekha Sharma, Sapna Nehra (eds) Advanced Materials for Batteries: Advantages, Disadvantages, and Future Applications, **CRC Press, Taylor and Francis Group**, 63-77, 2024, ISBN:9781032631370
11. Introduction to Batteries and Energy Storage In: Dinesh Kumar, Rekha Sharma, Sapna Nehra (eds) Advanced Materials for Batteries: Advantages, Disadvantages, and Future Applications, **CRC Press, Taylor and Francis Group**, 1-17, 2024, ISBN:9781032631370
12. Effects of Nanodiamonds on Cancer Cells In: Pallavi Jain, Chandrabhan Verma, Anirudh Pratap Singh Raman, Kamlesh Kumari, Prashant Singh (eds) Biosensors based on Graphene, Graphene Oxide & Graphynes for Early Detection of Cancer, **CRC Press, Taylor and Francis Group**, 53-60, 2025, ISBN:978-1-032-79279-8
13. Graphene Field-Effect Transistors for Cancer Diagnostics In: Pallavi Jain, Chandrabhan Verma, Anirudh Pratap Singh Raman, Kamlesh Kumari, Prashant Singh (eds) Biosensors based on Graphene, Graphene Oxide & Graphynes for Early Detection of Cancer, **CRC Press, Taylor and Francis Group**, 201-208, 2025 ISBN:978-1-032-79279-8
14. The Toxicology of Graphene, Graphene Oxide and Graphyne-Based Materials In: Pallavi Jain, Chandrabhan Verma, Anirudh Pratap Singh Raman, Kamlesh Kumari, Prashant Singh (eds) Biosensors based on Graphene, Graphene Oxide & Graphynes for Early Detection of Cancer, **CRC Press, Taylor and Francis Group**, 238-250, 2025 ISBN:978-1-032-79279-8
15. Society Strategies in Infectious Diseases In: Rajasekhar Chokkareddy, Suvadhan Kanchi and Gan G Redhi (eds.) Sustainable Nanomaterials for Treatment and Diagnosis of Infectious Diseases, **Wiley-Scrivener Publisher**, 139-154, 2025
16. Introduction of Sustainable Nanotechnology and Its Potentiality In: Rajasekhar Chokkareddy, Suvadhan Kanchi and Gan G Redhi (eds.) Sustainable Nanomaterials for Treatment and Diagnosis of Infectious Diseases, **Wiley-Scrivener Publisher**, 1-12, 2025
17. Wind energy: From Past to Present technologies In: Wind Energy Storage and Conversion: From Basics to Utilities, **Wiley-Scrivener Publisher**, 1-16, 2024, DOI: 10.1002/9781394204564.ch1. ISBN:9781394204335.
18. Solar energy concentrator research: Past & Present In: Inamuddin (ed) Solar Energy Concentrators: Essentials and Applications, **Wiley-Scrivener Publisher**, 121-133, 2024, ISBN 9781394204328.
19. Ferroic materials: From Past to Present In: Inamuddin, Tariq Altalhi and Mohammad Abu Jafar Mazumder (eds.) Ferroic Materials-Based Technologies, **Wiley-Scrivener Publisher**, 1-18, 2024, DOI: ISBN: 978-1-394-23817-0.

20. Microplastics and Nano-Plastics: Sources, Distribution, Behaviors and Fate In: Inamuddin, Tariq Altalhi, Jorddy Neves Cruz and Virgínia Cruz Fernandes (eds.) Toxic Effects of Micro- and Nanoplastics: Environment, Food and Human Health, **Wiley-Scrivener Publisher**, 125-138, 2024.
21. Wastewater Treatment Processes and resource recovery, effectiveness and Challenges In: Sewage and Biomass from Wastewater to Energy: Possibilities and Technology, **Wiley-Scrivener**, 347-363, 2024 ISBN 978-139420-431-1
22. Recent Advancements in Graphene-Based Photocatalyst for Water Splitting In: Naseer, M.N., Ikram, M., Zaidi, A.A., Abdul Wahab, Y., Johan, M.R. (eds) Graphene-Based Photocatalysts for Hydrogen Production and Environmental Remediation. Advanced Structured Materials, **Springer Nature**, Singapore. 219, 603-619, 2024 ISBN 9783031684630 DOI:10.1007/978-3-031-68464-7_25
23. Graphene-Based Photocatalysts for Biomedical Applications and Eco-Friendly Biomedical Waste Management. In: Naseer, M.N., Ikram, M., Zaidi, A.A., Abdul Wahab, Y., Johan, M.R. (eds) Graphene-Based Photocatalysts for Hydrogen Production and Environmental Remediation. Advanced Structured Materials, **Springer Nature**, Singapore. 219, 313-328, 2024 ISBN 9783031684630 DOI:10.1007/978-3-031-68464-7_17
24. Solid and Liquid Waste Management in Urban and Rural Areas: Current Practices and Future Perspectives In: Akanksha Gupta, Ravinder Kumar, Vinod Kumar (eds) Integrated Waste Management, **Springer Nature**, Singapore, 141–157, 2024 DOI: 10.1007/978-981-97-0823-9_7. ISBN 978-981-97-0823-9
25. Microwave- and Ultrasonic-Assisted Coupling Reactions In: Dakeshwar Kumar Verma, Chandrabhan Verma, Paz Otero Fuertes (eds) Green Chemical Synthesis with Microwaves and Ultrasound, **Wiley-Scrivener Publisher**, 133-155 2024 DOI:10.1002/9783527844494.ch5, ISBN:9783527844494
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27. Recombinant E.Coli in the rejuvenation of the polluted environment In: Genetically Engineered Organism in Bioremediation, **CRC Press**, 2024, DOI: 10.1201/9781003188568. ISBN: 9781003188568.
28. Eco-friendly Nature of Ionic Liquids In: Chandrabhan Verma (ed) Ionic Liquids: Eco-friendly Substitutes for Surface and Interface Applications, **Bentham Publication**, 16-36, 2023 DOI: 10.2174/9789815136234123010006, ISBN: 978-981-5136-23-4
29. Molybdenum-Modified Carbon Allotropes in Wastewater Treatment In: Chandrabhan Verma, Chaudhery Mustansar Hussain (eds) Carbon Allotropes and Composites: Materials for Environment Protection and Remediation, **Wiley-Scrivener Publisher**, 2023 DOI:10.1002/9781394167913.ch6. ISBN: 9781394167913
30. Processing of Indian Species for Extraction of Active Principles In: Sankhadip Bose, Sutapa Biswas Majee, Sabyasachi Banerjee (eds) Medicinal Spices and Herbs from India: Therapeutic Properties and Molecular Mechanisms, Vol 1, **Apple Academic Press (Exclusive Co-publishing with CRC Press, Taylor and Francis Group)**, 2024 ISBN: 9781774916940
31. Selective treatment of tumors using nanocarriers In: Inamuddin, Jorddy Neves Cruz, Tariq Altalhi (eds) Green Sustainable Process for Chemical and Environmental Engineering and Science: Recent Advances in Nanocarriers, **Elsevier** 261-276, 2023. ISBN: 9780323951715
32. An involvement of ionic liquids and other small molecules as promising corrosion inhibitors in recent advancement of technologies in chemical industries, In: Jamal Akhter Siddique, Shahid Pervez Ansari, Aftab Aslam Parwaz Khan and Abdullah M. Asiri(eds) Advanced Applications of Ionic Liquids, **Elsevier** 223-245, 2023. DOI: 10.1016/B978-0-323-99921-2.00004-5.

33. Market demand for smart packaging versus consumer perceptions. In: Inamuddin, Tariq Altalhi, Jorddy Neves Cruz (eds) Green Sustainable Process for Chemical and Environmental Engineering and Science Methods for Producing Smart Packaging (ISBN: 978-0-323-95644-4) **Elsevier** 115-128, 2023. DOI:10.1016/B978-0-323-95644-4.00011-5
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39. HNT-cellulose based Nano-composite and Applications In: Amir Al-Ahmed and Inamuddin (eds) Advance Applications of Micro and Nano Clay: Biopolymer Composites, **Materials Research Forum LLC, USA** 125, 254-274(2022) DOI: 10.21741/9781644901915-11
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41. Fundamental of Aerobic and Anaerobic Processes in Dye Wastewater, In: Khadir, A., Muthu, S.S. (eds) Biological Approaches in Dye-Containing Wastewater. Sustainable Textiles: Production, Processing, Manufacturing & Chemistry. **Springer Nature**, Singapore. 39-75 (2022) DOI:10.1007/978-981-19-0545-2_2
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47. Nanocellulose-Based Materials for Desalination of Saline Water. In: Dinesh Kumar (ed) Nanocellulose and Its Composites for Water Treatment Applications. **CRC press**, 135 (2021).
48. Nanocellulose-Based Materials for the Removal of Organic Toxicants and Antibacterial Applications. In: Dinesh Kumar (ed) Nanocellulose and Its Composites for Water Treatment Applications. **CRC press**, 183 (2021).
49. Alginates: Properties and Applicatins, In: Inamuddin, Mohd Imran Ahamed, RajenderBoddula, Tariq Altalhi (eds) Polysaccharides: Properties and Applications, **Wiley-Scrivener Publisher**, 392-422 (2021) DOI: 10.1002/9781119711414.ch19.
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52. The Role of Carbon Nanocomposite Membranes for Water and Wastewater Treatment. In: Jawaid M., Ahmad A., Ismail N., Rafatullah M. (eds) Environmental Remediation Through Carbon Based Nano Composites. Green Energy and Technology. **Springer Nature**, Singapore, (2021) DOI: 10.1007/978-981-15-6699-8_2.
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54. Green corrosion inhibitors for technological applications, In: Sustainable Corrosion Inhibitors, **Material research Forum LLC, USA**, 86, 127-160 (2021) DOI: 10.21741/9781644901052-5.
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56. Policy Approaches to Promote Women Entrepreneurship in India, In: Sustainable and Responsible Entrepreneurship and Key Drivers of Performance, **IGI Global**, 147-165 (2021).
57. Rural Innovation Using Technology in Progressive Agriculture: Empowering Women Towards Sustainable Rural Development, In: Driving Factors for Venture Creation and Success in Agricultural Entrepreneurship, **IGI Global** (2021). DOI:10.4018/978-1-6684-2349-3
58. Magnetic Aerogels In: Aerogels: Preparation, Properties and Applications Volume 1, **Material research Forum LLC**, 84, 155-171 (2020) DOI: 10.21741/9781644900994-6.
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61. Fundamentals, Mechanisms and key performance in K-ion batteries in Rechargeable Batteries, In: Potassium-ion Batteries: Materials and Applications, **Wiley-Scrivener Publisher**, Ch. 9, 191-212 (2020).

62. Alloys for K-Ion Batteries, In: Alloy Materials and Their Allied Applications, **Wiley-Scrivener Publisher**, Ch. 10, 191-211 (2020).
63. Mn-based materials for K-ion Batteries, In: Potassium-ion Batteries: Materials and Applications, **Wiley-Scrivener Publisher**, Ch. 4, 99-121 (2020).
64. History and Development of zinc batteries, In Zinc Batteries: Basic Development and Applications, **Wiley-Scrivener Publisher**, Ch. 11, 167-186 (2020).
65. Emerging Diagnostic Techniques for Lung Cancer Detection, In: Research Trends in Multidisciplinary Research, **AkiNik Publisher**, Ch. 7, 119-135 (2019).
66. E-learning: Foundation of Trends and Resources, **Digital India: Transforming India through Education**, NCDITIE'2016, 219-224 (2016). (ISBN: 978-93-84935-87-0)
67. A review paper on erucamide: Its synthesis, physical and chemical properties, **New Trends in Chemical Physics Research**, 109-150, **NOVA PUBLICATIONS**, New York (2011).
68. Synthesis of alkyl (Lauryl) poly-glucoside and effect of temperature, catalyst and time on reaction product, **Heavy metal pollution**, 167-195, **NOVA PUBLICATIONS**, New York (2008).

Conference Proceeding Publications

1. Computer Assisted Language Learning”, PSEPI, 272-275 (2014). (ISBN 978-93-83083-61-9)
2. The need of Future: Schiff’s Base metal Complexes, **Proceeding of New Approach in Chemical Sciences & Advancement in Renewable energy**, 67-72, (2014). (ISBN: 978-93-83083-67-1)
3. A review on the principles and roles of Green chemistry to reduce chemical related impact on human health and virtually eliminate contamination of the environment”, **Proceedings of NCGC**, 208-212 (2010).
4. Anticancer and Antimicrobial Activities of Schiff Base Ligand and Their Co(II), Cu(II), and Zn(II) Transition Metal Complexes: An Overview. In: Rattan, S., Gupta, B., Jeyaseelan, C., Gupta, A. (eds) Emerging Trends in Synthesis and Catalysis in Chemistry. ETSC 2023. **Springer Proceedings in Materials**, 51, 257-298 Springer, Singapore. DOI:10.1007/978-981-97-5169-3_19.
5. Strategies, Techniques and Advancement for Biomass Conversion: A Methodological Exploration. In: Awasthi, K.K., Srivastava, S., Rathore, S. (eds) The Green Revolution: Building Sustainable Solutions. RTESD 2023. **Springer Proceedings in Earth and Environmental Sciences**. Springer, Cham. 608-630 DOI: 10.1007/978-3-031-93444-5_46
6. Wastewater Treatment Reclamation and Reuse. In: Awasthi, K.K., Srivastava, S., Rathore, S. (eds) The Green Revolution: Building Sustainable Solutions. RTESD 2023. **Springer Proceedings in Earth and Environmental Sciences**. 348-361 Springer, Cham. DOI: 10.1007/978-3-031-93444-5_26

Conferences

1. Paper presented entitled “**A review on the principles and roles of Green chemistry to reduce chemical related impact on human health and virtually eliminate contamination of the environment**” In NCGC-10, Organized by SRM University, Modinagar (2010).
2. Paper presented entitled “**E-Learning: Foundation of trends and resources**” Organized by SRM University, Modinagar on 7th April 2012.
3. Paper presented entitled “**Quantitative separations of toxic heavy metal ions by using an ion exchange material**” in GTER-2012, organized by Gurukul Kangri University, Haridwar on 11-13 May 2012.
4. Paper presented entitled “**Nanomedicine: A boon of new Era**” in ICNANO-2013, organized by Ansal University, Gurgaon on 25-26th July 2013.

5. Paper presented entitled **“Inquiry based learning in Chemistry supported by E-Learning: An overview”** in ICRTC-13, Organized by SRM University, Modinagar on 4-5th Oct 2013.
6. Paper presented entitled **“Green Chemistry: A boon of new era”** in ISST-2013, Organized by Indra Prastha Engineering college, Ghaziabad on 30 Nov 2013.
7. Paper presented entitled **“Schiff’s base metal complexes: versatile therapeutic agents”** in ACES-2014, Organized by Arya PG College, Panipat, Haryana on 27-28th Feb 2014.
8. Paper presented entitled **“The need of future: Schiff’s base metal complexes”** in NCNACSAR-14, Organized by SRM University, Modinagar on 4-5th April 2014.
9. Paper presented entitled **“Computer Assisted Language Learning”** in PSEPI, Organized by SRM University, Modinagar on 9th May 2014.
10. Paper presented entitled **“Antifungal Screening of Nitrogen, Oxygen And Sulphur Donor Atom Containing Tridentate Ligand MethylCarbamathiosemicarbazone and itsCu(II) And Ni(II) Complexes: Synthesis, spectroscopic Approach, Molecular Modeling”** Organized by IMS Engineering College, Ghaziabad on 16th July2016.
11. Paper presented entitled **“Impact of nanotechnology on pharmaceutical research”** in GiAgT-2016, Organized by Scientific Educational Research Society, Meerut and SRM University, Modinagar on 9-11 September 2016.
12. Paper presented entitled **“Synthesis, characterization and spectroscopic studies of Transition metal complexes of 2-Acetyl-5-methyl-furanthiosemicarbazone and their biological activities”** in National conference on Science and technology for national development, Organized by Gurukul Kangri Vishwavidyalaya in association with The Indian science Congress association: Haridwar chapter, Haridwar on 20-22 November2016.
13. Paper presented entitled **“Synthesis, spectrsopic approach, biological screening and geometrical optimization of bidentate schiff’s base ligand and their Metal complexes”** in the Research Day, Organized by SRM Institute of Science & Technology, Kattankulathur on 1st March2018.
14. Paper presented entitled **“Antibacterial Screening Of Nitrogen And Sulfur Donor Atom Containing Methylcarbamathiosemicarbazone And Its Mn(II) And Co(II) Complexes: Synthesis, Spectroscopic Approach, Molecular Modeling”** in 3rd International Conference on Global trends in pure and applied Chemical Sciences, Organized by SRM University, Modinagar in association with Asian Publication Corporation on 8-9 December, 2017.
15. Paper presented entitled **“Prospects of Biologically active Schiff’s base ligand and metal complexes in Drug discovery”** in 1st International conference on Recent trends in Environmental and Sustainable Development, Organized by Vivekananda Global University, Jaipur in association with Institute of exploring advances in Engineering, Rajasthan Region on 23-25 February 2018.
16. Paper presented entitled **“Role of literature in moulding our Environment”** in 3rd International Conference on Emerging Trends in Language, Literature and Culture, organized by SRM Institute of Science & Technology, Modinagar on 23-25 March 2018.
17. Paper presented entitled **“Role of Digital Learning, Virtual Labs and Classrooms in Applied Sciences”** in International conference on Technology for Education, Training and Business, Organized by Noida International University, Greater Noida in association with Academic Research in Science, Engineering, Art & Management Foundation, New Delhi on 5-6 April, 2018.
18. Paper presented entitled **“Synthesis, Spectroscopic, Characterization, Molecular Modelling, and Biological Evaluation of Bidentate Schiff’s Base Ligand and Transition Metal Complexes”** in 3rd

International conference on Recent Advances in Material Chemistry (ICRAMC-2019) at SRM IST, Kattankulathur on 13-15th February 2019.

19. Paper presented entitled “**Bidentate thiosemicarbazone and its coordination complex: structure elucidation and biological investigation**” in Symposium on Recent Trends in Allied Science & Research Scholar Meet-2019 organized by Uka Tarsadia University, Bardoli on 13-15th February 2019.
20. Paper presented entitled “**Structure Evaluation and Biological Studies of Inorganic Coordination Compounds derived from Thiosemicarbazide**” in 2nd International Conference on Innovations in Chemical, Biological & Environmental Sciences (ICICBES-2019) organized by Arya PG College, Panipat, Haryana on 27-28th Feb 2019.
21. Paper presented entitled “**The consequence of imine bond origination: A biomaterial with robust Self-healing property for sustained release of highly water-soluble Levofloxacin**” in the Research Day, organized by SRM Institute of Science & Technology, Kattankulathur on 28th Feb 2019.
22. Paper presented entitled “Co (II) और Ni (II) के जैविक अनुप्रयोग की संभावनाएं तथा सेमिकारबोज़ोन और थियोसेमिकारबोज़ोन के समन्वय यौगिक” in Applications of Technical Terminology in Modeling, Optimization and Computing in Science and Technology in association of MHRD organized by SRM Institute of Science & Technology, Delhi NCR campus on 26-28th April 2019.
23. Paper presented entitled “**Transition metal (II) complexes of a novel Schiff’s base ligand: Synthesis, characterization, theoretical, molecular modeling and biological studies**” in National conference on New Imperatives in drug design and discovery organized by Uka Tarsadia University, Bardoli on 22-23rd November 2019.
24. Paper presented entitled “**Bioactive Thiosemicarbazone ligand and its metal(II) complexes: Synthesis, Structural characterization, computational studies and biological evaluation**” in 2nd International conference on Recent trends in Environmental and Sustainable Development (RTESD-2019), Organized by Vivekananda Global University, Jaipur in association with Material Research Society of India (MRSI), Rajasthan Chapter on 17-19th October, 2019.
25. Paper presented entitled “**Schiff Base Transition Metal Complexes: Synthesis, Characterization, Theoretical Analysis and Biological Potency**” in International conference on Recent Advances in Basic and Applied Sciences at Baba Mantnath University, Rohtak during 27-28th August 2021.
26. Paper presented entitled “**Preparation, spectral analysis and biological applications of Schiff base ligand and its transition metal complexes**” in Virtual International Conference on Smart Waste Management, on 11-12th October 2021.
27. Paper presented entitled “**An insight for the interaction between thiazolidine-2,4-dione with zinc chloride to get deep eutectic solvents through DFT calculations**” in Virtual International Conference on Smart Waste Management, on 11-12th October 2021.
28. Paper presented entitled “**A comparative study for the potential of 2-Deoxy-D-glucose, 2-Deoxy-D-ribose and 2-Deoxy-glucose against the Mpro of nCoV to combat COVID-19: A temperature dependent Molecular Dynamics Simulations**” in International Conference on “Recent Trends in Drug Discovery and Development” organized by the Department of Chemistry under the aegis of IQAC, Maitreyi College, University of Delhi held during 8-9th October on virtual platform.
29. Paper presented entitled “**Synthesis, Spectral characterization and Pharmacological applications of Schiff base ligand and its Transition Metal Complexes**” in International Online Conference on AdvHaridwar, U.K. in collaboration with Uttarakhand State Council for Science and Technology, Uttarakhand from 21st-22nd December 2021.

30. Paper presented entitled “**Strategies, Techniques and Advancement for Biomass Conversion: A Methodological Exploration**” in 3rd International Conference on "Recent Trends in Environment and Advances in Chemical Sciences, organized by Department of Chemistry, H.V.M. (P.G.) College Raisi, Sustainable Development (RTESD-2023), organized by Vivekananda Global University, Jaipur during 22nd-24th December, 2023.

Workshops /Seminars/Conferences

- **Coordinator** of the **National conference on Green Chemistry (NCGC-10)** held at SRM University, Modinagar during 16-17th Sep 2010.
- **Participated** in Seminar on **Innovative ideas for ‘Make in India’** held at SRM University, Modinagar on 23rd Jan 2012.
- **Participated** in two days FDP titled “**Paradigm Shift on Pedagogy & EIM**” held at SRM University, Modinagar, during 8-9th Feb 2012.
- **Coordinator** of the **National conference on Green Chemistry (NCGC-12)** held at SRM University, Modinagar during 18-19th Sep 2012.
- **Participated** in five days FDP titled “**Image Processing, Computer Vision and Pattern Recognition**” held at National Institute of Technology, Delhi during 18-22nd June 2013.
- **Participated** in five days FDP titled “**Advance Research Methodology & Data Analytical Tools**” held at Jaipuria Institute of Management, Vasundhara during 10-14th July 2013.
- **Organizer** of the **National workshop on Mathematical analysis and Modelling (NWMAM-13)** held at SRM University, Modinagar on 5th April 2013.
- **Coordinator** of the **National workshop on Mathematical analysis and Matlab (NWMAM)** held at SRM University, Modinagar on 25th Oct 2013.
- **Participated** in the National seminar on **Essential oils, Fragrances, Flavors & Cosmetics Industry** organized by Mewar University, Rajasthan on 23rd Nov 2013.
- **Co-Convener** of the **National conference in Chemical Sciences & Advancement in Renewable Energy** held at SRM University during 4-5th April 2014.
- **Coordinator** in **Robotic Workshop**, Organized by SRM University, Modinagar, 2015.
- **Participated** in a fifteen days Workshop titled “**Entrepreneurship Development Programme**” conducted by NIESBUD, Govt. of India during 18 February - 4 March 2015.
- **Coordinator** in **International conference on Global initiatives in Applied Sciences and Green Technologies** held at SRM University during 9-11 September 2016 in collaboration with Scientific Educational Research Society, Meerut.
- **Coordinator** for **Student Development Program (S.D.P)** conducted at SRM University during 15-17 September 2016 by Innovation and Entrepreneurship Development Centre (IEDC) in association with **CONSULTANCY SERVICES CELL**, State Bank of India.
- **Coordinator** for **Entrepreneurship Development Program (E.D.P)** conducted at SRM University from 20th September 2016 by Innovation and Entrepreneurship Development Centre (IEDC) in collaboration with The National Institute for Entrepreneurship and Small Business Development (NIESBUD), Noida.
- **Coordinator** for **Impressions 2K16, A National level Business Plan Competition (BPC)**

conducted at SRM University on 29th January 2016 by Innovation and Entrepreneurship Development Centre (IEDC).

- **Organizing Committee** in DST-Inspire Internship Science Camp, sponsored by DST, Government of India and Organized by SRM University, Modinagar in 2017.
- **Faculty Coordinator** in **3rd International Conference on Global trends in pure and applied Chemical Sciences**, Organized by SRM University, Modinagar in association with Asian Publication Corporation during 8-9 December, 2017.
- **Participated** in Faculty Development Programme – **ERUDITIA 2018** in June, 2018.
- **Organizing Committee member** in **IEEE Conference** of ECE Dept held at SRM-IST, Delhi-NCR Campus during 28-29th September 2018.
- **Organizing Committee member** in **5th International Conference on recent Trends in Computing (ICRTC-18)** at SRM-IST, Delhi-NCR Campus held during 27-28th December 2018.
- **Participated** in Workshop on **SWAYAM for development of MOOCs: Growth and Opportunities** in collaboration with National institute of Open Schooling (NIOS), ministry of Human Resource development (MHRD), Gov. of India at Noida International University, Greater Noida on 22nd April 2019
- **Organizing Committee member** in **Applications of Technical Terminology in Modeling, Optimization and Computing in Science and Technology** in association of MHRD held at SRM-IST, Delhi-NCR Campus during 26-28th April 2019.
- **Organized 3rd International Conference on Micro-Electronics and Telecommunication Engineering (ICIMETE-2019)** at SRM-IST, Delhi-NCR Campus held during 28-29th September 2019.
- **Organized 5th International Conference on Intelligent Computing and Applications (ICICA-19)** at SRM-IST, Delhi-NCR Campus held on 6-8th December 2019.
- **Organized** a Guest Lecture on **A big world of small things** at SRM IST, Delhi NCR campus in February 2020.
- **Organized** a Guest Lecture on **Roles of Computational tools in treatment of Chickungunya Virus** at SRM IST, Delhi NCR campus in February 2020.
- **Organized** a Guest Lecture (**Webinar**) on **Research Publications: Skills, Ethics and Misconducts** at SRM IST, Delhi NCR campus in May 2020.
- **Organized** a Guest Lecture (**Webinar**) on **Approach to Mitigation of Environment-assisted degradation, Graphene: Ultra-thin coatings** at SRM IST, Delhi NCR campus in June 2020.
- **Organized** a National seminar on **Astrology** at SRM IST, Delhi NCR campus in Feb 2020.
- **Participated** in 2-days National Open Workshop on “**Getting Aligned to the Publishing Process-Author Workshop**” at Elsevier on 25th September 2020.
- **Participated** in 2-days National Open Workshop on “**Getting Aligned to the Publishing Process-Scopus + ScienceDirect**” at Elsevier on 28th September 2020.
- **Participated** in “**International Webinar on New horizons in Chemical Sciences & Technology**” organized by Ch. Chhotu Ram (P.G.) college, Muzaffarnagar on 29th September 2020.
- **Participated** in a webinar session on “**Carbon Nanotubes: From Synthesis to Applications**” organized by The Biomics on 18th October 2020.
- **Participated** in a webinar session on “**Stem cells**” organized by The Biomics on 08th November 2020.
- **Participated** in 20 days FDP titled “**Recent Advances in Chemical Sciences**” organized by SRM IST, Kattankulathur during 9-20th July 2020.
- **Participated** in “**Webinar Series to celebrate Wildlife Week 2020**”, organized by Enprotec India Foundation during 2-8th October 2020.

- **Participated** in Webinar on “**NEP 2020: Higher Education Curricular Issues and Implications**” organized by National Institute of Technical Teacher’s Training and Research, Bhopal on 11th November 2020.
- **Participated** in International Webinar on “**Scientific Writing**” organized by IIS, Jaipur with Association of chemistry Teachers (ACT) during 27-28th November 2020.
- **Participated** in webinar session on “**Low-cost renewable energy driven (LC-RED) wastewater treatment options**” organized by Pandit Deendayal Petroleum University, Gujrat on 20nd February 2021.
- **Participated** in International webinar on “**Sustainable Chemistry (IWS-2021)**” organized by Association of chemistry Teachers (ACT), C/O Homi Bhabha Centre for Science education (TIFR), Mumbai on 18th March 2021. (Certificate no.K81YP8-CE000444)
- **Participated** in National ONLINE Lecture Series on “**Subverting Social Inequities**” organized by Sharda University & Azim Premji University during 24-26th March 2021.
- **Participated** in National level one week FDP titled “**Research Methodology**” organized by Kamla Nehru Mahavidyalaya, Nagpur from 26th April-1st May 2021. (Certificate no.2QKSIY-CE002282)
- **Participated** in “**International E-conference on Recent Advances in Chemical, Physical and Biological Sciences (RACPBS-2021)**” organized by Nadira Mahavidyalaya, Kotal and Association of Chemistry Teachers, Mumbai during 29-30th June 2021. (Certificate no. RTB4IS/CE001580)
- **Participated** in the National Webinar on “**Nano Materials Innovative Applications**” organized by Arya PG College, Panipat, Haryana on 9th July 2021. (Certificate no.APGC/Webinar/2021/11)
- **Participated** in International Webinar on “**Drug Discovery (IWDD-2021)**” organized by Atma Ram Santan Dharma College, University of Delhi on 20th July 2021. (Certificate no. IWDD-ARSD-196)
- **Participated** in the National Webinar on “**Recent Advances in Chemistry**” organized by IQAC, Govt. G.N.A. PG College, Bhatapara on 26th July 2021. (Certificate no. EKYRG4-CE000149)
- **Participated** in National level Webinar on “**Writing and Evaluation of Scientific Research Articles**” organized by Seth Kesarimal Porwal College of Arts, Science and Commerce, Kamptee & Taywade College, Mahadula- Koradi on 31st July 2021.
- **Participated** in “**Virtual International conference on Multifunctional Advanced Materials (VICMAM-2021)**” organized by JVM’s Degree College in association with Association of Chemistry Teachers, Mumbai during 9-10th August 2021.
- **Participated** in an online one week FDP titled “**Applied Chemistry: A catalyst for Scientific Transformations**” organized by Lavoisier’s association, Department of Chemistry, SGT University, Gurugram from 23-28th August 2021. (Certificate no. SGTU/12551/2021)
- **Participated** in One-Day Online Workshop on “**How to Conduct the Student Induction (SIP) Program**” organized by All India Council for Technical Education (AICTE) on 20th September 2021. (Certificate no. AICTE/FDP-SI/OnlineDemoWorkshop/2254)
- **Participated** in Three-Days Online Workshop on “**Analytical and Numerical Methods for Non-Linear Vibrations**” organized by SRM Institute of Science and Technology, Kattankulathur during 23-25th September 2021.
- **Participated** in Two-days Workshop on “**Space Physics**” organized by SRM IST, Delhi NCR campus during 8-9th October 2021.
- **Participated** in International Conference on “**Recent Trends in Drug Discovery and Development**” organized by Department of Chemistry under the aegis of IQAC, Maitreyi College, University of Delhi held during 8-9th October on virtual platform.
- **Participated** in “**Ten Days National level Lecture Series**” organized by Nabira Mahavidyalaya, Kotal during 21-31st January 2022.
- **Participated** in the International Webinar on “**Chemistry Education (IWCE-2021)**” organized by the Department of Chemistry, Kamla Nehru Mahavidyalaya, Nagpur and Govt. Madhav science PG College, Ujjain, in association with Association of Chemistry Teachers (ACT) Mumbai during 4th-5th February 2022. (Certificate no. QZZBQA-CE000847)

- **Participated** in the guest lecture on “**The usage & Application of ReaxysDatabase**” organized by SGT University, Gurugram on 12th February 2022. (Certificate no. SGTU/1821/2022)
- **Participated** in Webinar series on “**Advances in Bio-Sensing technologies**” organized by Department of Biomedical Engineering, SRM IST, KTR campus during 17th-18th February 2022.
- **Participated** in International Webinar on “**Empowering Diversity in Science**” organized by Department of Chemistry, Kamla Nehru Mahavidyalaya, Nagpur, Association of Chemistry Teachers (ACT) Mumbai & Department of Chemistry, Kalasalingam Academy of Research and Education (KARE), in collaboration with International Union of Pure & Applied Chemistry (IUPAC), Global Women’s Breakfast-2022 (Certificate no. E8O9DU-CE003162)
- One Day Skill Development Program on Essentials of Patents organized by Innovative Technology Enabling Center - InTEC, CSIR-Institute of Minerals and Material Technology (IMMT), Bhubaneswar on 06th March 2024
- **Participated** in Three-Days Workshop on “**Research & Funding: Proposal Writing Techniques**” organized by SRM Institute of Science and Technology, NCR campus during 9-11th May 2024.

Faculty Development Program

- **Completed ATAL FDP** on “**Research and Innovation for Growth**” organized by BNM Institute of Technology, Bangalore from 23-27th August 2021. (Certificate no. ATAL/2021/1628663679)
- **Completed ATAL FDP** on “**Lean thinking for Sustainable Business Practices**” organized by SRM Institute of Technology, Delhi NCR Campus from 16-20th August 2021. (Certificate no. ATAL/2021/1627573848)
- **Completed ATAL FDP** on “**Nano Materials for Next-generation Applications**” organized by M S Ramaiah Institute of Technology, Bangalore from 12-16th July 2021. (Certificate no. ATAL/2021/1624322906)
- **Completed ATAL FDP** on “**Novel Materials**” organized by Malvaya National Institute of Technology, Jaipur from 4-8th January 2021. (Certificate no. ATAL/2020/1607318363)
- **Completed** short term training programme on “**Training of Trainers (TOT) for teacher educators**” organized by National Institute of Technical Teacher’s Training and research, Bhopal, MHRD, Govt. of India from 5-9th October 2020.
- **Completed** online FDP on “**Entrepreneurial education as a tool for promoting Women employment in India**” conducted by National Institute of Entrepreneurship and Small Business development from 26-30th October 2020.
- **Completed ATAL FDP** on “**Green Technology & Sustainability Engineering**” organized by Gandhi Institute of Technology and Management (Off Campus), Bengaluru from 16-20th November 2020. (Certificate no. ATAL/2020/1604120899)
- **Completed ATAL FDP** on “**Waste Technology**” organized by B.M.S College of Engineering, Bangalore from 23-27th November, 2020. (Certificate no. ATAL/2020/1605869630)
- **Completed ATAL FDP** on “**Green Technology & Sustainability in Chemistry**” organized by Adhiyamaan College of Engineering, Tamilnadu from 02-06th August 2021. (Certificate no. ATAL/2021/1627573928)
- **Completed** successfully One-week International FDP on “**Research Methodology**” organized by Amar Sewa Mandal’s Kamla Nehru Mahavidyalaya, Nagpur from 02-07th May 2022 (Certificate no: 5BEK1K-CE000132)
- **Completed** One-week International FDP on “**ICT tools for effective teaching and Learning**” organized by Kamla Nehru Mahavidyalaya, Nagpur from 23-28th May 2022 (Certificate no: D8THJ8-CE000306)
- **Completed FDP** on “**Modern trends of Organic-inorganic hybrid functional materials and their prospective in Energy and Environmental applications (MOIHFE-2022)**” organized by Department of Chemistry, SRMIST, KTR from 09-16th May 2022.

- **Completed** successfully One-week International FDP on “**Microbes’ Potential to Bail Out the Energy Crisis**” organized by Department of Biochemical Engineering, School of Chemical Technology, Harcourt Butler Technical University, Kanpur from 15-20th December, 2022.
- **Completed** successfully 5-days National Workshop on Research Methodology and Applied Statistics, organized by Modern College of Professional Studies from 17th-21st April, 2023
- **Completed** successfully One week National e-Workshop on Innovation and Intellectual Property Rights (**NeW IPR-2023**) organized by Innovative Technology Enabling Centre (InTEC), CSIR-IMMT, Bhubaneswar from 12th-17th June, 2023
- **Completed** successfully One Week Online National FPD on Research Methodology, FDP-2023” organized by Kamla Nehru Mahavidyalaya, Nagpur from 24th-29th June, 2023.
- **Completed** 5 Days FDP on “Pharmaceutical Innovations & Protection Strategies” organized by Seven Hills College of Pharmacy India & CSIR –Institute of Minerals & Materials Technology, Bhubaneswar, India from 18th – 22th July, 2023
- **Completed** One week FDP on “Higher Education: A Paradigm Shift in Teaching and Learning” organized by IILM Law School, Gurugram from 24th - 29th July, 2023.
- **Completed** 5-days FDP on “Frontiers in Multidisciplinary Research” organized by School of Basic Sciences, Galgotias University, Greater Noida from 16th - 22nd August, 2023
- **Completed** 5-days FDP on “Advances in Sustainable Materials” organized by School of Basic Sciences, Galgotias University, Greater Noida from 12th -16th September, 2023.
- **Completed** the NEP 2020 Orientation & Sensitization Programme under Malaviya Mission Teacher Training Programme (MM-TTP) of University Grants Commission (UGC) organized by Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram, Chennai during 13th-22nd December, 2023.
- **Completed** successfully 5-days FDP on “Innovative Teaching and Learning Pedagogy” organized by MKES Khandwala College & Research Foundation of India from 9th -13th Jan, 2024
- **Completed** successfully One Week Online FDP on “Research & Innovation: Proposed Writing Tools, Techniques and Funding” organized by Mahatma Hansraj Malaviya Mission Teacher Training Centre (MH-MMTTC), Hansraj College, University of Delhi in collaboration with SRM Institute of Science and Technology Delhi-NCR Campus from 11th - 16th March, 2024
- **Completed** 5-Days Online FDP on “Nanotechnology and its application” organized by MKES Khandwala College & Research Foundation of India from 22th -26th April, 2024
- **Completed** 6 Days Online FDP on “**Research Papers, IPR and Project Proposal Writing**” organized by ABES Engineering College, Ghaziabad from 06th - 11th May 2024
- **Completed ATAL FDP** on “**Electric vehicle: an emerging technology for future sustainability in Indian scenario**” organized by SRM Institute of Management & Technology from 25th-30th November 2024.
- **Completed ATAL FDP** on “**Future Trends in Novel Materials**” organized by SRM Institute of Management & Technology from 9th-12th December 2024.
- Faculty Development Program (FDP) on **Environmental Studies and Green Technology** organized by Amity School of Chemical Sciences (ASCS), Amity University Punjab, Mohali sponsored by the University Grants Commission (UGC-HRDC) from 23rd-30th January 2025.
- Faculty Development Program (FDP) on “**NEP 2020 Orientation and Sensitization**” organized by Amity School of Chemical Sciences (ASCS), Amity University Punjab, Mohali in collaboration with UGC-MMTTC (HRDC), JNV University, Jodhpur from 6th-13th February 2025.
- Successfully completed the FDP on **Indian Knowledge System (IKS)** under Malaviya Mission-Teacher Training Programme (MM-TTP) of University Grants Commission (UGC) Organized by JNV University, Jodhpur, Rajasthan from 03-10 July 2024 and secured grade A+ and earned 3 credits.
- Faculty Development Program on “**Analytical Techniques**” organized by SHRI VAISHNAV VIDYAPEETH VISHWAVIDYALAYA, INDORE in Collaboration with Association of Chemistry Teachers from 21th-25th April 2025.

- Capacity building program for Academic Leaders organized by All India Management association, on 7 July 2025 at AIMA, New Delhi

Achievements and Awards

- Awarded with Gold Medal on Research Day'2018 for Oral Presentation (Institutional Level), 2018
- Online Certificate from NPTEL in **Organometallic Chemistry** in Jan-Feb 2019
- Online Certificate from NPTEL in **Coordination Chemistry** in July- Oct 2019.
- Keynote speaker in the Conference on **Translational (Engineering) and Regenerative Medicine** (CoTERM 2020) at Noida International University, Greater Noida on 21-23rd January 2020.
- **Organized 5-day workshop on Intellectual Property Rights (IPR)** in collaboration with CIPAM, Department for promotion of industry & Internal Trade, Ministry of Commerce & Industry, Government of India, during 2-6th November 2020.
- **Local coordinator in "Neo Hindi Writers Workshop"** organized by SRM Institute of Technology, Delhi NCR Campus in collaboration with Central Hindi Directorate, Ministry of Education, Department of Higher Education, Govt. of India during 3-10th December 2021.
- **Appointed as Expert** to review books under **"Shiksha Puruskarr Yojna-2020"** at Central Hindi Directorate, Ministry of Education, Department of Higher Education, Govt. of India on 4th and 6th January 2022.
- **Evaluated** Ph.D Thesis entitled **"Formulation and Development of Silver Nanoparticles Gel Synthesized from Brassica Oleracea and its Antimicrobial Efficacy"** of Department of Chemistry, Noida International University, Greater Noida.
- **Evaluated** Ph.D Thesis entitled **"Studies on Pharmacological Approaches for Treatment of Type 2 Diabetes Mellitus Patients"** of Department of Chemistry, Noida International University, Greater Noida.
- **Technical Session Chairperson** at "2nd International Online Conference on Emerging Trends in Chemical Science (E.T.C.S.-23)" organized by H.V.M. (P.G.) College & U.S.E.R.C during 17th-18th March 2023.
- **Session Chair** at 2nd Biennial International Symposium on Fluids and Thermal Engineering FLUTE 2023 organized by Amity School of Engineering & Technology, Noida during 20th -21st July, 2023.
- **Session Chair** at Two-Day International Seminar on "Value Education and Literature: Interrelationship" organized by Modern College of Professional Studies Ghaziabad during 13th -14th December, 2023.
- **Invited Speaker** at 3rd International Conference on "Recent Trends in Environment and Sustainable Development (RTESD-2023)", organized by Vivekananda Global University, Jaipur during 22nd - 24th December, 2023.
- **Session Chairperson** at International Conference on Chemical and Biological Sciences-2024 organized by Atma Ram Santan Dharma College, University of Delhi on 27th- 29th January 2024.
- **Local coordinator in "Hinditar Bhashi Hindi Navlekhak Shivir"** organized by SRM Institute of Technology, Delhi NCR Campus in collaboration with **Central Hindi Directorate, Ministry of Education, Department of Higher Education, Govt. of India** during 26th Feb-1st March 2024.
- **Local Program Coordinator of 3-days FDP on Universal Human Values (UHV-I)** organized by SRM Institute of Technology, Delhi NCR Campus in collaboration with **AICTE, Govt. of India** during 30th May-1st June 2024.
- **Speaker in "DAC and PAQIC Meetings"** organized by IMS Engineering College, Ghaziabad on 11th November, 2024.
- **Local Program Coordinator of 5-days FDP on Universal Human Values (UHV-II)** organized by SRM Institute of Technology, Delhi NCR Campus in collaboration with **AICTE, Govt. of India** during 3rd -7th Jan 2025.

- **Invited Speaker** at 4th International Conference on "Recent Trends in Environment and Sustainable Development (RTESD-2025), organized by Vivekananda Global University, Jaipur during 27th- 29th January 2025.
- **Session Chair** at 4th International Conference on "Recent Trends in Environment and Sustainable Development (RTESD-2025), organized by Vivekananda Global University, Jaipur during 27th- 29th January 2025.
- **Local Program Coordinator of 5-days FDP on Universal Human Values (UHV-II)** organized by SRM Institute of Technology, Delhi NCR Campus in collaboration with **AICTE, Govt. of India** during 8th-12th March 2025.
- **Local Program Coordinator of 3-days FDP on Universal Human Values (UHV-I)** organized by SRM Institute of Technology, Delhi NCR Campus in collaboration with **AICTE, Govt. of India** during 10th-12th March 2025.
- **Coordinator of National Conference for Universal Human Values (UHV) Volunteers**, hosted by the UHV Cell of SRM Institute of Science & Technology, Delhi NCR Campus, Modinagar, from 3rd-5th April 2025
- **Joint Organizing Secretary** of All India Inter University E-sports (M&W) Championship -2024-2025 organized at SRM Institute of Science & Technology, Delhi NCR Campus, Modinagar, from 25th- 27th April 2025
- **Local Program Coordinator of 8-days FDP on Universal Human Values (UHV-I)** organized by SRM Institute of Technology, Delhi NCR Campus funded by **AICTE, Govt. of India** from 27th June - 4th July 2025.
- **Evaluated** Ph.D Thesis entitled “**SYNTHESIS AND CHARACTERIZATION OF THERMALLY SUSTAINABLE LOW COST SUPPORTED Ni CATALYST FOR DRY REFORMING OF METHANE**” of Department of Chemistry, **INDUS UNIVERSITY**, Ahmedabad-382115, Gujrat (20.10.2025)
- **External Examiner** for Ph.D Viva Voce entitled “**SYNTHESIS AND CHARACTERIZATION OF THERMALLY SUSTAINABLE LOW COST SUPPORTED Ni CATALYST FOR DRY REFORMING OF METHANE**” of Department of Chemistry, **INDUS UNIVERSITY**, Ahmedabad-382115, Gujrat (22.11.2025)
- **Editor** of a Special issue Green Chemistry for Waste-to-Energy and Wastewater Treatment: Advancing Sustainable Development Goals, **Current Green Chemistry 2025**, <https://bentham.manuscriptpoint.com/journals/cgc>
- **Editor** of a Special issue Next-Generation Nanomaterials for Environmental Remediation Applications, **Frontiers 2026**, <https://www.frontiersin.org/research-topics/75998/next-generation-nanomaterials-for-environmental-remediation-applications>

Patent

Published patent entitled “A method of parenting & programming of outdoor education centers in Urban areas”. Application Number-202111022169, Publication date: 28.5.2021

Memberships

- Life member of The Indian Science Congress Association, Kolkatta (Membership no. L29077), 2016
- Life member of The Association of Chemistry Teachers, Mumbai (Membership no. LM1820), 2016
- Life member of The Indian Chemical Society, Kolkatta (Membership no. F/7865LM), 2016
- Life member of The Indian Science Congress Association, Haridwar Chapter, Kolkatta (Membership no. L0167), 2014
- Member of International Society for Energy, Environment and Sustainability (Membership no. 23010), 2023 (5 years)

Research Guide: Yes

Research Scholars: 02 (Completed), 03 (Thesis submitted), 01 (Pursuing)

Languages Known : English and Hindi (Skilled in speaking and writing).