



FACULTY PROFILE

Name : Prof. (Dr.) Manoj R. Gaware (Orcid Id: 0000-0002-1364-5225)

Date of Birth : 25th December 1980

Field of specialization : Organic Chemistry, Synthesis, Solution Chemistry, Computational Chemistry

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G.M.D Arts, B. W. Commerce and Science College, Sinnar,
Nashik

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ACADEMIC QUALIFICATIONS: (only UG, PG and Ph.D.)

Degree	University / Institution	Grade / %	Year of Passing	Specialization
B.Sc.	University of Pune.Pune	75.83	2001	Che + Bot + Phy
M.Sc.	University of Pune.Pune	65.85	2003	Organic Chemistry
SET	University of Pune.Pune	-----	2004	Chemical Sciences
NET	CSIR,New Delhi	-----	2005	Chemical Sciences
Ph.D.	Savitribai Phule Pune University,Pune	-----	2017	Synthesis, Computational and Solution Chemistry

EXPERIENCE:

Name & Address of Employer	Post Held	Period of service
K.K.Wagh College, Nashik	Lecturer	July 2004-July 2005
ACS College, Kopergaon	Assistant Professor in Chemistry	July 2005-Sep 2010
ACS College, Nandgaon	Assistant Professor in Chemistry	Sep 2010 –Aug 2018
K.P.G ACS College, Igatpuri	Assistant Professor in Chemistry	Aug 2018 - Aug 2021
G.M.D Arts B.W Commerce College, Sinnar	Associate Professor in Chemistry	Aug 2021 till date

REFRESHER/ORIENTATION COURSES COMPLETED: -

Details of Course	Duration
Orientation, UGC- Academic staff College, Pune University, Pune	28 days 03/11 to 30/11/2008
Refresher, UGC- Academic staff College, H.P University, Shimla	21 days 01/04 to 21/04/2010
Refresher UGC- Academic staff College, University of Kerala, Kerala	21 days 01/10 to 22/10/2012
Short Term Course UGC-Human Resource Development Centre, Sant Gadge Baba Amravati University, Amravati.	One Week 06/11/2017 to 11/11/2017
Short Term Course “Instrumental Techniques for Chemical Analysis” under Pandit Madan Mohan Malviya National Mission on Teachers Teaching (PMMMNTT) organized by Teaching Learning Centre, S.P.P.U, Pune and Department of Chemistry, K.T.H.M College, Nashik	One Week 08/10/2018 to 14/10/2018
Faculty Development Programme “NEP 2020 Orientation and Sensitization Programme” under Malaviya Mission Teacher Training Programme (MM-TTP) of University Grants Commission (UGC) organized by UGC-Malaviya Mission Teacher Training Centre, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur	Two Week 01/12/2024 to 15/12/2024

Faculty Development Programme Accelerating Drug Discovery through AI: Machine Learning Applications in Chemistry organised by Guru Nanak Institute of Technical Campus, New Delhi	One Week 09/12/2024 to 14/12/2024
Faculty Development Programme NEP- 2020 Orientation & Sensitization Programme Organised By UGC-Malaviya Mission Teacher Training Centre And Shri Hari Prasad Gour Vishwavidyalaya, Madhya Pradesh	Two Week 02/04/2025 to 14/04/2025
Faculty Development Programme in Chemistry under Malaviya Mission Teacher Training Programme (MM-TTP) of University Grants Commission (UGC) organized by UGC-Malaviya Mission Teacher Training Centre, Savitribai Phule Pune University, Pune	One Week 02/02/2026 to 08/02/2026

REASEARCH AND DEVELOPMENT

1. PUBLICATIONS IN JOURNALS :

No.	Title of the paper / Authors	Journal
2009		
1	Study of some new Pyridinium salts and their conversions into Dienes and other useful compounds Manoj R Gaware and V.D.Bobade	<i>Bulletin of Pure and Applied Sciences</i> , 2009, 28-C, (37-41).
2	Stereoselective Synthesis of (Z)-Aldoximes Manoj R Gaware and V.D.Bobade	<i>Bulletin of Pure and Applied Sciences</i> , 2009, 28-C, (25-29).
3	Comparative Study of (E) and (Z) Aldoximes Manoj R Gaware and V.D.Bobade	<i>Bulletin of Pure and Applied Sciences</i> , 2009, 28-C, (53-55).
2014		
4	¹ H Nuclear Magnetic Resonance studies Of (Z)-Aromatic aldoximes. Manoj R Gaware , D. D. Lokhande and A.M Bhagare	<i>Research Journal of Chemical Sciences</i> , 2014, 1, (31-33)
5	Computational Study of Maleanilic acid and its derivatives D.D. Lokhande, Manoj R Gaware and A.M Bhagare .	<i>Research Journal of Chemical Sciences</i> , 2014, 1, (25-30)
6	Evaluation of Physico-Chemical parameters of reservoir	<i>Research Journal of Chemical</i>

	water samples from Dindori Tehsil, Nashik. A.M Bhagare, D. D. Lokhande and M.R Gaware	Sciences , 2014, 1, (123-124)
2015		
7	Heavy Metal Contamination of Vegetables grown in and around Nashik city, Maharashtra State. A.M Bhagare, D.D. Lokhande and M.R Gaware	<i>Global online electronic international interdisciplinary research journal(GOEIIRJ)</i> , 2015, 04, 387-390.
2016		
8	DFT and Experimental studies of N-(4-nitrophenyl) maleimide D.D Lokhande, J.S.Aher, A.B.Sawant, S.V.Patil, M.R.Gaware.	Der Pharma Chemica , 2016, 8(14), 159-168
9	A Simple and Efficient Synthesis of 2,4 dioxypyrimidine carboxylate and 4-oxo-2-thioxypyrimidine carboxylate derivatives using Ammonium Chloride M.R.Gaware , J.S.Aher, D.D Lokhande, P.J.Tambade	Journal of Basic Sciences , 2016, 4(1), 43-46
10	Density, Viscosity of 2,4 dioxo pyrimidine carbonitrile and 4-oxo-2-thioxo pyrimidine carbonitrile in 60 % aqueous DMSO at 308.15 K J.S.Aher, M.R.Gaware , A. B. Sawant, D.D Lokhande, S.V.Patil	Researchers World , 2016,4(4),120-124,
11	Experimental and Theoretical studies of some N-Aryl Maleimides J.S.Aher, D.D Lokhande, S.V.Patil, A. B. Sawant, M.R.Gaware	Researchers World , 2016,4(4),13-25,
2017		
12	Molecular Interionic Interaction study of 4-oxo-2-thioxypyrimidine carbonitrile and its derivatives in 60 % aqueous DMSO at 308.15 K M.R.Gaware , D.D Lokhande, B. N. Shelke, J.S.Aher	Scholarly Research Journal for Interdisciplinary Studies , 2017 6(21), 92-97
13	Density and Viscosity study of some 4-substituted N-Phenyl Maleimides in 80% DMSO at 308.15 K	Scholarly Research Journal for Interdisciplinary Studies , 2017,

	D.D Lokhande, J.S.Aher, A.B. Sawant, M.R.Gaware , A. V. Kardel	6(21), 137-141,
14	Experimental and density functional theory investigation of bond length , bond angle and thermodynamic parameters in dihydropyrimidine carbonitrile J.S Aher, M. R. Gaware , D.D. Lokhande	<i>Scholarly Research Journal for Interdisciplinary Studies</i> , 2017, 4(31), 5116-5128,
15	Densitometric and Viscometric studies of 2, 4 dioxo pyrimidine carbonitrile and 4-oxo-2-thioxo pyrimidine carbonitrile in 60 % aqueous DMSO at 298.15 K. J.S Aher, M. R. Gaware , D.D. Lokhande	<i>International Journal of Engineering Research and General Science</i> , 2017, 5(4), 13-19.
16	Experimental and Computational Studies of N-(4-Bromophenyl) Maleanilic Acid and N-(4-Bromophenyl) Maleimide J.S Aher, D.D. Lokhande, M. R. Gaware	<i>International Journal of Chemical and Physical Sciences</i> , 2017, 6(4), 58-70
17	A simple and efficient one pot synthesis of 2,4 dioxypyrimidine carbonitrile and 4-oxo-2-thioxypyrimidine carbonitrile derivatives using ammonium chloride under solvent free conditions M.R.Gaware , J.S.Aher, D.D Lokhande, P.J.Tambade, A. M Bhagare	<i>Indian Journal of Chemistry-B</i> , 2017, 56(B)09, 997-999

2018		
18	Falkenhagen and Jones –Dole Coefficient studies of 2,4 dioxo pyrimidine carbonitrile and 4-oxo-2-thioxo pyrimidine carbonitrile in 60 % aqueous DMSO at 303.15 K M.R.Gaware, J.S.Aher	<i>International Journal of Chemical and Physical Sciences</i> , 2018, 7(Spl Issue), 89-96.
19	Study of Density Functional Theory of (4-hydroxyphenyl) pyrimidine-5-carbonitrile J.S. Aher, A.V. Kardel, M.R.Gaware , D.D.Lokhande	<i>International Journal of Chemical and Physical Sciences</i> , 2018, 7(Spl Issue), 165-173.
20	Experimental and Theoretical spectral study of 4-amino-2-hydroxy-6-phenylpyrimidine-5-carbonitrile J.S. Aher, A.V. Kardel, M.R.Gaware , D.D.Lokhande	<i>International Journal of Chemical and Physical Sciences</i> , 2018, 7(Spl Issue), 174-180.
21	Determination Of Solute-Solute And Solute-Solvent Interactions Of 4-Oxo-2-Thioxo Pyrimidine Carbonitriles In 60% Aqueous DMSO At 303.15 K. M.R.Gaware	<i>Bulletin of Pure and Applied Sciences</i> , 2018, 37-C(2), 76-81
22	Apparent molar volumes and viscosity coefficient studies of 2, 4 dioxo pyrimidine carbonitrile and 4-oxo-2-thioxo pyrimidine carbonitrile in 60% aqueous DMSO at 313.15 K M.R.Gaware	<i>International Journal of Basic and Applied Research</i> , 2018, 8(6), 809-818
2019		
23	Experimental and Density Functional Theory of 4-Amino -2- Mercapto-6-Phenylpyrimidine-5-	<i>Journal of Biological and Chemical Chronicles</i> , 2019, 5(3), 13-18

	Carboxamide J.S.Aher, A.V. Kardel, M.R.Gaware , D.D. Lokhande	
24	Biological Activities of Synthesized Dihydropyrimidine Carboxylates and its Derivatives M.R.Gaware , P.J. Tambade, B.N. Shelke	<i>Journal of Biological and Chemical Chronicles</i> , 2019, 5(3), 47-49
25	Partial Molar Volumes and Viscosity B-coefficient of 4-oxo-2-thioxopyrimidine carbonitrile and derivatives in 60 % aqueous DMSO at 313.15 K M.R.Gaware	<i>International Journal of Research and Analytical Reviews</i> , 2019, 6(1), 116-121
26	One Pot Synthesis of Pyrimidine-5- Carbonitrile and Pyrimidine-5- Carboxamide using Ammonium Chloride Under Solvent Free Condition J.S.Aher, A.V. Kardel, M.R.Gaware , D.D. Lokhande, A.M Bhagare	<i>Journal of Chemical Sciences</i> , 2019, 131(07), 54-57
27	Density Functional Theory Investigation of Bond Length, Bond Angle and Thermodynamic Parameters in 4-Amino-2-Hydroxy-6-Phenylpyrimidine-5 Carboxamide J.S.Aher, A.V. Kardel, M.R.Gaware , D.D. Lokhande, A.M Bhagare	<i>Current Pharma Research</i> 2019, 403, 26-37
28	A Simple, Green and Expendious Synthesis of Salen of 2-Hydroxy -1-Naphthaldehyde with ethylene Diamine in Water and its Complexation with various transition metal (Co, Cu, Fe, Ni) exploring ultra sound waves. P.J. Tambade, B.N. Shelke, S.S. Kushare, M.R.Gaware	<i>Journal of Advanced Science Research</i> , 2019, 10(04), 48-52
2020		
27	Gaussian Software: An effective tool for theoretical study of molecular properties	<i>Akshar Wangmay</i> , 2020, 69-76

	M.R.Gaware, J.S.Aher	
28	Novel Schiff bases derived from N-aryl maleimide derivatives as an effective antimicrobial agent: Theoretical and experimental approach J.S.Aher, A.M. Bhagare, M.R.Gaware , A.V. Kardel, , D.D. Lokhande, A. D. Bholey, A. C. Dhayagude	Bioorganic Chemistry, 2020, 103, 104129-11
29	Thermodynamic studies of 6-(4-chlorophenyl)-1,2,3,4-tetrahydro-2,4-dioxypyrimidine-5-carbonitrile in 60% DMSO in the temperature range 298 to 313 K M.R.Gaware	Journal of Polymer and composite, 2020, 8(2), 78-81
30	Synthesis of some new Schiff Bases of N-aryl 3- and 4-substituted Maleimides A M Bhagare, J.S. Aher, D D Lokhande, M R Gaware , A V Kardel	Journal of Research and Development, 2020, 10(10),266-274
31	Thermodynamics Studies for 6-(4-chlorophenyl)-1,2,3,4-tetrahydro-4-oxo-2-thioxypyrimidine-5-carbonitrile in 60% Dimethyl Sulphoxide at Different Temperatures M. R. Gaware	Oriental Journal Of Chemistry, 2020, 36(6), 1240-1242
32	Ammonium Chloride as an Effective Catalyst for the Synthesis of Biologically Active Dihydropyrimidin-2-one-5-carboxylates M.R.Gaware , Arun Bhagare, Dnyaneshwar Lokhande	Indian Journal of Heterocyclic Chemistry, 2020, 30(4), 621-624
2021		
33	Studies of molar refraction and polarizability constant of 6-(4-chlorophenyl)-1,2,3,4-tetrahydro-2,4-dioxypyrimidine-5-carbonitrile in 60% DMSO in the temperature range 298 to 313 K M.R.Gaware	Indian Journal of Science and Technology, 2021 14(2), 113-118
34	Conductance and solvent behaviour of 6-(4-chlorophenyl)-1, 2, 3, 4-tetrahydro-2, 4-dioxypyrimidine-5-carbonitrile in 60% DMSO at	Eurasian Chemical Communication, 2021, 3, 187-192

	different temperatures M.R.Gaware	
35	Determination of Solute-solute and solute-solvent interaction of Pyrimidine-5-carbonitrile in aqueous DMSO at 298.15 K J.S.Aher, A.V. Kardel, M.R.Gaware , D.D. Lokhande, A.M Bhagare	<i>Current Physical Chemistry, 2021, 11(2), 132-138</i>
36	Concentration and temperature dependence of the thermodynamic properties of novel biologically active 3-substituted Schiff's base of 4-Piperidyl N-(4-chlorophenyl) maleimide J.S.Aher, A.M. Bhagare, M.R.Gaware , A.V. Kardel, , D.D. Lokhande, A. D. Bholey, A. C. Dhayagude, K.S. Mahale	<i>Asian Journal of Chemistry, 2021, 33(6), 1403-1408</i>
2022		
37	Study Of Electrical Properties And Solvent Behaviour Of 6-(4-Chlorophenyl)-1, 2, 3, 4-Tetrahydro-4-Oxo-2-Thioxopyrimidine-5-Carbonitrile At Different Temperatures. M.R.Gaware	<i>Rasayan Journal of Chemistry, 2022, 15(1), 432-436</i>
2022		
38	Acid-Base Modified Biosorbent for Heavy Metal Removal- A Review B. N. Shelke, M. K. Jopale, M.R.Gaware , A.H. Kategaonkar	<i>Asian Journal of Organic and Medicinal Chemistry 2022, 7(2), 7-15</i>
2023		
39	Biosorption of methylene blue by lentil shell on activation with sulfuric acid, formaldehyde, and calcination: kinetic, isotherm, and thermodynamic study Bharat N. Shelke, Manohar K. Jopale, Kamalakar U. Chavan, Manoj R. Gaware & Amol H. Kategaonkar	<i>Journal of Dispersion Science and Technology, 2023,</i>

40	Temperature Dependence and Molecular Interactions Studies from Refractive Indices of 6-(4-Chlorophenyl)-1, 2, 3, 4-Tetrahydro-4-Oxo-2- Thioxopyrimidine-5-Carbonitrile in 60% Aqueous Dimethyl Sulphoxide A. M. Rayate and M.R. Gaware	<i>Indian Journal of Science and Technology</i> , 2023, 16(36), 2907-2911
2024		
41	Thiourea-Ammonium Chloride mediated Knoevenagel Condensation as an intermediate in synthesis of Pyrimidine scaffolds under solvent free condition A. M. Rayate and M.R. Gaware	<i>Letters in Organic Chemistry</i> , 2024, 21(9), 749-755 DOI: 10.2174/0115701786286587240130114029
2025		
42	Design, Synthesis of Imidazole Scaffolds as an Effective Larvicidal Agent against Etiella zinkenella and In Vitro Antibacterial and Antifungal Evaluation against Candida albicans with DFT Calculations, Molecular Docking Technique and Theoretical Biological Potential A M. Rayate, M. R. Gaware , D. D. Lokhande, A. H. Kategaonkar, A. M. Bhagare B. N. Shelke, A. S. Kale, S. S. Bhamare	<i>Results in Chemistry</i> , 2025, 15, 102259-13 DOI https://doi.org/10.1016/j.rechem.2025.102259
43	In silico approach for determination of protein-ligand and protein-protein interaction studies of Imidazole scaffolds against various microbes using LigPlot+ and DIMPLOT diagrams as computational tool of molecular docking A M. Rayate, M. R. Gaware , A. S. Kale, A. P. Bhagat	<i>Journal of Advanced Pharmacy Education Research (in Review)</i>
44	Antibody-Antigen interactions with antibody loops, rainbow's spectrum of various Imidazole scaffolds against various microbes using molecular docking A M. Rayate, M. R. Gaware , A. S. Kale	<i>International Journal of Scientific Research in Science and Technology</i> , 2025, 12(11), 8-15 doi.org/10.32628/IJSRST
45	Synthesis, Characterization of C-N functionalized pyrazolone scaffolds as potent antimicrobial, larvicidal agent with DFT calculations, molecular docking, molecular dynamic stimulation studies and PASS analysis	<i>Proceeding of the Indian National Science Academy (online)</i> https://doi.org/10.1007/s43538-025-00624-7

	A M. Rayate, M R. Gaware , A S. Kale, P N. Jadhav	
46	Ligplot+ and DIMPLOT diagrams as effective computational tool of molecular docking for in silico approach in determination of protein-ligand and protein-protein interaction studies of imidazole scaffolds A M. Rayate, M R. Gaware , A S. Kale, A P. Bhagat	<i>Indian Journal Of Pharmaceutical Education And Research(In Review)</i>
2026		
47	Design, Synthesis, Computational Profiling, 3D-QSAR, Molecular Docking of Imidazole-Pyrazolone Scaffolds as Dual-Action Microbial and Larvicidal Agents: Probing Structure-Activity Relationships, ADMET, LD50 for Multi-Target Efficacy A M. Rayate and M. R. Gaware	<i>Journal of Iranian Chemical Society</i> 2026, 23(195), 1-32 https://doi.org/10.1007/s13738-026-03462-6

2. PUBLICATIONS IN CONFERENCE :

- Paper presentation on “Overview and Future Scope of SWAYAM in the World of MOOCS at National Level Workshop on National Education Policy-Accreditation 2020 organized by G. M. D. Arts, B. W. Commerce and Science College, Sinnar on 06/02/2023 to 07/02/2023.
- Paper presentation in International Conference on “Current Research in Applied and Fundamental Sciences” at Sandip University on 12/07/2021 to 13/07/2021.
- Paper presentation in National Conference on “Emerging Trends in Chemistry and Materials Science (ETCMS-2019)” G.M.D Arts, B.W. Commerce and Science College, Sinnar” on 18/01/2019 to 19/01/2019.
- Paper presentation in Interdisciplinary National Conference on “Computer Applications and Use of Recent Techniques in Science” at Karmaveer Shantarambapu Kondaji Wavare Arts, Science and Commerce College, Cidco, Nashik” on 28/12/2018 to 29/12/2018.
- Paper presentation in International Level Conference on “Advances in Functional Materials (ICAFM-2018)” at K.T.H.M College, Nashik” on 12/01/2018 to 13/01/2018.
- Paper presentation in International Level Conference on “Challenges in Organic, Bio-organic and Medicinal Chemistry ” at K.S.K.W Arts, Science and Commerce college,

Cidco, Nashik sponsored by BCUD, S.P Pune University and IEEEP on 02/02/2017 to 04/02/2017.

- Paper presentation in International Level Conference on “Pure and Applied Sciences 2016” at M.S.G Arts, Science and Commerce college, Malegaon sponsored by BCUD, S.P Pune University on 12/12/2016 to 14/12/2016
- Paper presentation in National Level Conference on “Innovative Research Techniques in Chemical and Physical Sciences” at S.S.G.M College, Kopargaon, Ahmednagar sponsored by U.G.C New Delhi on 07/08/2015 to 08/08/2015.
- Paper presentation in National Level Conference on “Environment and Education” at Adv.V.H College of Education, Nashik, on 10/11/2015 to 11/11/2015

3. BOOK PUBLISHED

Sr.No	Title of Book	Publisher	ISBN No	Place of Publishing	Year
01	Synthesis of Z-Aldoximes and its Non Aqueous Beckmann Rearrangement	Lambert Academic Publishing, Germany	978-620-0-47435-3	International	2019
02	Physical and Analytical Chemistry (Sem III) CBCS pattern	Prashant Publication	978-93-89501-65-0	National	2020
03	Chemistry Practical (Sem III) CBCS pattern	Prashant Publication	978-93-89501-65-0	National	2020
04	Physical and Analytical Chemistry (Sem IV) CBCS pattern	Prashant Publication	978-93-89501-65-0	National	2020
05	Chemistry Practical (Sem IV) CBCS pattern	Prashant Publication	978-93-89501-65-0	National	2020
06	Physical Chemistry -I (Sem V) CBCS pattern	Prashant Publication	978-93-89501-65-0	National	2021
07	Chemistry Practical (Sem V) CBCS pattern	Prashant Publication	978-93-89501-65-0	National	2021

08	Physical Chemistry-II (Sem VI) CBCS pattern	Prashant Publication	978-93-89501-65-0	National	2022
09	Physical Chemistry-III (Sem VI) CBCS pattern	Prashant Publication	978-93-89501-65-0	National	2022
10	Chemistry Practical (Sem VI) CBCS pattern	Prashant Publication	978-93-89501-65-0	National	2022
11	Molar Volumes and Jone Dole Coefficients of Dihydropyrimidines and its Derivatives	Astral International Private Limited	978-93-5461668-6	National	2022
12	Organic Chemistry	Good Writers Publication	978-93-5756-028-3	National	2023
13	Recent advances in Knoevenagel Condensation reaction using solvent free condition	Lambert Academic Publishing, Germany	978-620-0-47435-3	International	2024
14	Management of the Thalassemia Syndromes: The Global Perspective in Souvenir Cum Proceedings on Education, Awareness and Detection of Thalassemia to Make Thalassemia Free Maharashtra 2025	Aashray Samajik, Sanskrutik and Shaikshanik Trust	78-93-341-9277-3	National	2025
15	Study of some basic principle, types , models and application of Molecular Docking in “	L.V.H. Arts, Science and Commerce College, Panchavati			2025

16	Molecular Docking Technique for structural, interactions in chemical molecule in “International Conference on Innovations in Science for Sustainable Development	Smt. Narsamma Arts, Commerce and Science College, Amravati	978-81-955425-9-8	National	2025
17	Studies Of Some Basics Principle, Types, Models & Applications of Molecular	Walnut Publication	978-93-6926-691-3	International	2025
	Docking in “Recent Innovations in Chemical and Material Sciences				
18	Organic and Analytical Chemistry Practical for S.Y.B.Sc (NEP-2020)	Prashant Publication	978-93-7776-450-0	National	2026
19	Pharmacognosy and Phytochemistry	RG International Publication	978-93-47331-33-6	National	2026
20	Foresight In Gaussian Software As Tool For Theoretical Studies To Contribute For Viksit Bharat @2047 in “Contribution of Colleges/HEIs for Viksit Bharat in 2047 with Respect to Various Sectors”	G. M. D. arts, B. W. Commerce and Science College Sinnar	978-93-5759-365-6	National	2026
21	Perspective Insights Of Contribution Of Molecular Docking For Viksit Bharat @2047 in “Contribution of Colleges/HEIs for Viksit Bharat in 2047 with Respect to Various Sectors”	G. M. D. arts, B. W. Commerce and Science College Sinnar	978-93-5759-365-6	National	2026

22	Insights in Synthesis, characterization, computational studies, PASS predictions, antimicrobial evaluation, larvicidal activity, molecular docking and of C-N functionalized pyrazolone molecular framework in “International Conference on Emerging Trends and Advances in Management, Law, Humanities, and Social Sciences 2026 (Global Nexus 2.0 2026)”	Research Beacon Publication RBP, India	978-81-999419-9-1	International	2026
22	“Advancing Computer-Aided Drug Discovery (CADD), Innovation Through Women’s - Prevalent Diseases Led Molecular Docking” at the State level seminar on “Participation Of Woman in Higher Education”	Jyotikiran Publication, Pune	978-93-47108-45-7	State Level	2026
23	Imidazole And Pyrazolone Hybrids: Synthesis, Computational Insights And Bioactive Applications In Drug Discovery	Chyren Publication	978-93-7880-111-2	International Level	2026

4. RESEARCH PROJECTS

Research Project Title	Completed/ Ongoing	Funding Agency	Funds (Amount in Rs.)
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Synthesis and Characterization of aryl oximes and their non aqueous convenient protocol study for Beckmann Rearrangement” funded by UGC, New Delhi.	Completed	UGC, New Delhi	65,000/-
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5. PATENTS:

S.N	Title of the Patent	National/ International	Patent No.	Funding Agency	Details of Patent
1	Medicinal Plant Leaf Extracts That Are Used To Treat Plant Diseases Were Put Up Against Each Other In A	National	202221039793	-	Published
	Physicochemical Test				
2	The Effect Of Population Explosion On Reservation System	National	202321003518	-	Published
3	Motorcycle Ignition Biosensor Helmet	National	409222-001	-	Design Patent Granted
4	Reactor for Production and Utilization of Diazomethane	National	404834-001	-	Design Patent Granted
5	Hand Operated Fruit Cutting Machine	National	411037-001	-	Design Patent Granted

6	Effective Hand Operated Wheat Flour Vermicelli (Kurdai) preparation Machine	National	412037-001	-	Design Patent Granted
7	Container to check water holding capacity of soil	National	412186-001	-	Design Patent Granted
8	Portable Spectrophotometer for Real-Time Chemical Analysis.	International	6380678	-	Design Patent Granted
9	Portable Three Way Led Torch	National	433581-001	-	Design Patent Granted
10	PVC Pipe Borrer Machine	National	432998-001	-	Design Patent Granted
11	Wound healing property of powder extracted from flowers of Typha augustifolia L.	National	202421093113	-	Published
12	Macro Fungi	National	448580-001	-	Design
	Collection Trunk				Patent Granted
13	Macro Fungi Preservation Bag	National	448581-001		Design Patent Granted

6. CONSULTANCY

Title of the Project	Funding Agency	Grant sanctioned	Duration		Project Status completed / on-going
			From	To	
Synthesis and Characterization of new analog of pyrimidine derivatives	Hexa Life Sciences	50,000	2020	2021	Completed

7. RESEARCH GUIDANCE:

Ph. D.

Name of the Scholar	Title of the Thesis	Submitted/ Awarded (Pls. Specify)	Name of the University	Month and Year
Miss Ankita Mukund Rayate	Theoretical interpretation and new strategies towards synthesis of imidazole and pyrazolone scaffolds using multicomponent reactions	Awarded	Savitribai Phule Pune University	December 2025

8. DETAILS OF SEMINAR/CONFERENCE/WORKSHOPS PARTICIPATED

Title of Seminar	Venue and other details	Mode of participation
State Level Workshop on “Theoretical and Experimental Aspects of Flame Emission Spectroscopy and Gas Chromatography”.	L.V.H Mahavidyalaya sponsored by University of Pune on 15/03/2005.	Participation
State Level Conference on “Recent Trends in Synthetic Organic Chemistry”	S.S.G.M College Kopargaon sponsored by UGC, New Delhi on 09/03/2006 to 11/03/2006	Participation
State Level Conference on “Recent Trends in Synthetic Organic Chemistry”	S.S.G.M College Kopargaon sponsored by UGC, New Delhi on 16/02/2007 to 17/02/2007.	Participation
State Level Workshop on “Restructuring of F.Y.BSc. Chemistry Syllabus”	Agasti Arts , Commerce and Dadasaheb Rupwate Science College, Akole sponsored by University of Pune on 13/12/2007.	Participation

National Level Symposium on “Interface of Teachers and Students with Chemical Industries.”	K.T.H.M college Nasik sponsored by University of Pune, UGC, WRO,Pune on 26/12/2007 to 28/12/2007..	Participation
National Level seminar on “Value Education”	K.J.Somaiya College of Arts, Sci and Com. College, Kopargaon ,Ahmednagar, sponsored by UGC, on 17/3/2008 to 18/3/2008.	Participation
National Level seminar on “Progressive Journey of Drug from Mind to Market”	PVP College of Arts,Sci and Com. College, Loni , Ahmednagar, sponsored by University of Pune, on 18/12/2008 to 20/12/2008.	Participation
State Level seminar on “Scope and Application of Chemistry in Agriculture”	K.K.Wagh College,Pimpalgaon (B) sponsored by University of Pune on 27/01/2009 to 28/01/2009.	Participation
State Level seminar on “Spectroscopic Trends in Organic and Inorganic Chemistry”	S.S.G.M College,Kopergaon ,sponsored by UGC(WRO,Pune) on 24/02/2009 to 25/02/2009.	Participation
National Level seminar on “Nanoscience”.	G.M.D Arts,B.W.Com and Science College Sinnar ,Nashik, sponsored by UGC,New Delhi on 21/01/2010 to 23/01/2010	Participation
State Level seminar on “Recent Trends in Synthetic Organic Chemistrty”	Radhabai Kale Mahila Mahavidyalaya ,Ahmednagar Sponsered by UGC,New Delhi on 28/01/2010 to 29/01/2010	Participation

National Level Conference on “Application of Chemical Research in Pharmaceutics”	Arts,Commerce and Science College, Rahata,, Ahmednagar, sponsored by BCUD, University of Pune, on 04/02/2011 to 06/02/2011	Participation
State Level seminar on “ Contemporary Issues in Environment”	Arts, Commerce and Science College, Saikheda, Niphad, Nashik sponsored by BCUD, University of Pune, on 07/02/2011 to 08/02/2011	Participation
National Level seminar on “Advances in Synthetic and applied Chemistry”	Sangamner College, Sangamner, Ahmednagar, sponsored by UGC(WRO,Pune) on 06/09/2012 to 08/09/2012	Poster Presentation
State Level Workshop on “E-learning: Resources, application and Effectiveness”	K. K. Wagh College, Pimpalgaon (B) sponsored by University of Pune.on 28/03/2012.	Participation
State Level seminar on “Applications of Synthetic Chemistry”	Arts,Commerce and Science College,Dindori,Nashik,sponsored by BCUD, University of Pune.on 01/03/2013 to 01/03/2013.	Poster Presentation
Workshop on “Framing of S.Y.B.Sc Chemistry syllabi”	K.T.H.M College, Nashik, sponsored by University of Pune on 31/12/2013	Participation
International Workshop on “Introduction of Gaussian :Theory and Practice”	IISER, Pune, on 12/12/2014 to 16/12/2014	Participation

National Level Conference on “Current Innovations in Chemical Research”	K.J.Somaiya College, Kopargaon, Ahmednagar sponsored by BCUD, Savitribai Phule Pune University, Pune on 22/12/2014 to 23/12/2014	Poster and Paper Presentation
National Level Conference on “Innovative Research Techniques in Chemical and Physical Sciences”	S.S.G.M College, Kopargaon, Ahmednagar sponsored by U.G.C New Delhi on 07/08/2015 to 08/08/2015.	Participation
National Level Conference on “Environment and Education”	Adv.V.H College of Education, Nashik, on 10/11/2015 to 11/11/2015	Paper Presentation
State Level seminar on “Optical Activity and Stereo Chemistry”	K. K. Wagh Arts, Commerce and Science College, Pimpalgaon Baswant. Niphad, Nashik, sponsored by BCUD, University of Pune .on 19/01/2016 to 20/01/2016.	Participation
Workshop on “Overview on Analytical Instrumentation	K.T.H.M. College Nashik sponsored bt BSR Technologies Pvt Ltd, Nashik on 13/08/2016	Participation
International Level Conference on “Pure and Applied Sciences 2016”	M.S.G Arts, Science and Commerce college, Malegaon sponsored by BCUD, S.P Pune University on 12/12/2016 to 14/12/2016.	Paper Presentation

International Level Conference on “Challenges in Organic, Bio-organic and Medicinal Chemistry ”	K.S.K.W Arts, Science and Commerce College, Cidco, Nashik sponsored by BCUD, S.P Pune University and IEEEEP on 02/02/2017 to 04/02/2017.	Paper Presentation
International Level Conference on “ Advances in Functional Materials (ICAFM-2018)	K.T.H.M College on 12/01/2018 to 13/01/2018	Paper Presentation
Interdisciplinary National Conference on “Computer Applications and Use of Recent Techniques in Science”	Karmaveer Shantarambapu Kondaji Wavare Arts, Science and Commerce College, Cidco, Nashik on 28/12/2018 to 29/12/2018.	Paper Presentation
National Conference on “Emerging Trends in Chemistry and Materials Science (ETCMS-2019)	G.M.D Arts, B.W. Commerce and Science College, Sinnar on 18/01/2019 to 19/01/2019.	Paper Presentation
One Day workshop on “Implementation of CBCS for F.Y.B.Sc.	C.T. Bora College of Arts, Commerce and Science, Shirur. Dist: Pune on 25/07/2019	Participation
National Program of Teaching Tools in Basic Chemistry	Dadasaheb Bidkar Arts, Commerce and Science College. Peth. Nashik on 26/12/2019 to 28/12/2019	Participation
State level Seminar on “Use of ICT in teaching, learning and Management of Institution	G.M.D Arts, B.W. Commerce and Science College, Sinnar on 18/01/2020 to 19/01/2020.	Paper Presentation

One Day workshop on “Revision of S.Y.B.Sc. Chemistry syllabus (CBCS)	S.V.K.T Arts, Commerce and Science College, Deolali Camp on 25/02/2020	Participation
Spitting Kills Campaign to prevent spread of Covid-19	Alemelu charitable foundation in April-May 2020	Participation
State Level Webinar Series on “Health Awareness”	M.V.P. Samaj’s K.S.K.W Arts Commerce and Science College, Cidco, Nashik from 01/06/2020 to 06/06/2020	Participation
Teacher Training Program on “Designing Interactive Virtual Chemistry Practical using Power point	PDEA’s Prof. Ramkrishna More Arts, Commerce and Science College, Akurdi, Pune on 7/05/2021 to 08/05/2021	Participation
International Conference on Current Research in Applied and Fundamental Sciences	Sandeep University on 12/07/2021 to 13/07/2021	Participation
Teacher workshop on “New Revised Syllabus of T.Y.B.Sc. Chemistry S.P.P.U Pune	Department of Chemistry, Prof. Ramkrishna More Arts, Commerce and Science College, Akurdi, Pune on 30/08/2021	Participation
State Level Webinar on Intellectual Property Right and Research Impact	M.V.P Samaj’s K.P.G Arts, Commerce and Science College, Igatpuri on 26/10/2021	Participation
Webinar on IP awareness/ Training program under National Intellectual Property Awareness Mission	M.V.P. Samaj’s K.S.K.W Arts Commerce and Science College, Cidco, Nashik on 01/03/2022	Participation
Impact Lecture series (Session –I)	K. J. Somaiya Arts, Commerce and Science College. Kopargaon on 04/07/2022	Participation

Impact Lecture series (Session –II)	K. J. Somaiya Arts, Commerce and Science College. Kopergaon on 26/07/2022	Participation
Workshop on National Education Policy -2020-	M. V. P. Samaj's Human Resource Development Center, Nashik on 11/02/2023	Participation
Workshop on National Education Policy 2020-Accreditation	M. V. P. Samaj's G.M.D. Arts, B.W. Commerce and Science College, Sinnar. Nashik on 6/2/2023 to 7/2/2023	Paper Presentation and Participation
One Day Workshop on “ Work Skills and Prosocial Behavioral Development for Senior and Professional College Teachers”	Maratha Vidya Pasarak Samaj's Human Resource Development Center (HRDC) Nashik on 21/04/2023	Participation
One Day Workshop on “ Restructuring of syllabus at F.Y.B.Sc(Chemistry) in the light of NEP-2020”	S.B.V.P. Samaj's Sahakar Maharshi Bhausaheb Santuji Thorat College of Arts, Science and Commerce , Sangamner Ahmednagar on 20/09/2023	Participation
National workshop on Recent Trends in Research Methods	Swa. Sawarkar Mahavidyalaya, Beed on 2/1/2024 to 4/1/2024	Participation
One Day Workshop on Voice Care	M.V.P. Samaj's G. M. D. Arts, B. W. Commerce and Science College Sinnar and Maharashtra State Department of Higher and Technical Education Maharashtra Information Technology Support Center on 05/01/2024	Participation

Two Day Workshop on “Career Sansad”	Shardabai Pawar Mahila Arts, Commerce and Science College Baramati and Maharashtra State Department of Higher and Technical Education Maharashtra Information Technology Support Center on 11/01/2024 to 12/01/2024	Participation
One Day Workshop on “Implementation of National Education Policy (NEP 2020)	M. V. P. Samaj’s Shrimati Vimlaben Khimji Tejookaya Arts, Science and Commerce College, Deolali Camp on 6/5/2024	Participation
National Level Research Workshop on “Geogebra Math Tool for 3 D Visualization	A. C. T. academy, Kerela on 10/12/2024	Participation
Faculty Development Programme on “Accelerating Drug Discovery through AI: Machine Learning Applications in Chemistry”	Guru Nanak Institute of Technical Campus from 09/12/2024 to 14/12/2024	Participation
Faculty Development Programme on “NEP 2020 Orientation and Sensitization Programme”	UGC-Malaviya Mission Teacher Training Centre, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur from 1/12/2024 to 15/12/2024	Participation
State Level Conference On “Education, Awareness and Detection of Thalassemia to Make Thalassemia Free Maharashtra 2025”	G. M. D. Arts, B. W. Commerce and Science College, Sinnar and Aashray Samajik, Sanskrutik and Shaikshanik Trust, Thane on 19/12/2024.	Participation
International Conference on “Innovations in Science for Sustainable Development”	Smt. Narsamma Arts, Commerce and Science College, Amravati on 19/03/2025 to 20/03/2025	Participation

Workshop on “Breakthrough Research”	Thieme Poster Prize Winner on 23/01/2026	Participation
National Level Boot camp on “ AI in Digital Marketing”	Arts and Commerce College, Wadala on 10/02/2026	Participation
International webinar on “From Curiosity to Discovery: Women Scientist In Chemistry”	Government Arts College, Tiruchirappalli, Tamil Nadu on 10/02/2026	Participation
International Workshop on “ Empowering Indigenous Knowledge through AI and New Technologies for Innovation and Patent Excellence in Asia”	Eudoxia Research Centre, Gueahati (ERC) on 28/03/2026	Participation

➤ **Completed Certificate Course in “Digital Productivity offered by NIIT Foundation**

9. REVIEWER AND EDITORIAL: -

- i) Potential Reviewer for Malaysian Journal of Chemistry
- ii) Potential Reviewer for Letters in Organic Chemistry
- iii) Member of Editorial Board for Letters in Organic Chemistry
- iv) Reviewer for InSc- International Journal of Basic and Applied Sciences.
- v) Potential Reviewer of Oriental Journal of Chemistry
- vi) Potential Reviewer for Walailak Journal of Science and Technology
- vii) Member of Editorial Board for Journal of Modern Polymer Chemistry and Materials
- viii) Potential Reviewer for Journal of Pharmaceutical Research International.
- ix) Potential Reviewer for Uttar Pradesh Journal of Zoology.
- x) Potential Reviewer for International Research Journal of Pure and Applied Chemistry
- xi) Potential Reviewer for Journal of Energy Research and Reviews
- xii) Potential Reviewer for Journal of Material Science Research and Reviews
- xiii) Potential Reviewer for Journal of Scientific Research and Reviews
- xiv) Potential Reviewer for Chemical Science International Journal
- xv) Potential Reviewer for Asian Journal of Chemical Sciences
- xvi) Potential Reviewer for Asian Journal of Physical and Chemical Sciences
- xvii) Potential Reviewer for Journal of Scientific Research and Reports
- xviii) Potential Reviewer for Journal of Energy Research and Reviews

10. ACADEMIC AFFILIATIONS / MEMBERSHIP OF PROFESSION BODIES:-

- a) Professional Member for Institute of Scholars (InSc)
- b) Member of College Development Committee for Shikshan Mandal Bhagur Arts, Commerce and Science College, Deolali Camp. Nashik
- c) Member of College Development Committee for Maratha Vidya Prasarak Samaj's Karmaveer Punjababa Goverdhane Arts, Commerce and Science College, Igatpuri. Nashik.
- d) Member of College Development Committee for Maratha Vidya Prasarak Samaj's G.M.D. Arts, B.W. Commerce and Science College, Sinnar. Nashik.

11. AWARDS & HONOR: 1) State Level Vasantao Naik Award-2019.

2) National Level “Best Teacher Award” by Education Excellence Award-2020, New Delhi

3) National Level “Academic Excellence award” by InSc Awards, Bangalore

4) National Level “Best Faculty Award” by Science and Technology Award-20, New Delhi

5) National Level “Contribution to Education Community” Global Teaching Excellence Award 2020, New Delhi

6) International Best Researcher Award for Research Paper “Studies of molar refraction and polarizability constant of 6-(4-chlorophenyl)-1,2,3,4-tetrahydro-2,4- dioxypyrimidine-5-carbonitrile in 60% DMSO in the temperature range 298 to 313 K”

12. CO-CURRICULAR/EXTRA CURRICULAR & OTHER ACTIVITIES:

- Online teaching by using ZOOM app, Google meet
- Online test by google forms
- Guidance for IIT-JAM for undergraduate students
- Participation in online webinars
- Use of teaching material for students using Google Classroom

a. SEMINAR/WORKSHOP ORGANIZED

Title of Programme	Duration
Recent Developments and Future Challenges in Chemical Sciences	22-23 rd January 2016

b. DETAILS OF LECTURE DELIVERED IN SEMINAR/CONFERENCE/EXPERT LECTURES

- Expert Lecture on “Intellectual Property Rights and Patent Filing” at R. B. N. Borawake, College, Shirampur, Ahilyanagar

- Expert Lecture on “Awareness about IPR and patents” at K.V.N. Naik Arts, Commerce, Science and Computer Science College, Sinnar
- Guest of Honour for Science Exhibition at St. Patrick Convent High School, Deolali Camp
- Expert Lecture on “Research paper writing” at K.K.Wagh Arts, Commerce, Science and Computer Science College
- Guest Lecture on “Career Guidance” at Drona Academy, Shirdi, Ahmednagar
- Delivered Guest Lecture on “Research Methodology” at Shri Eknath Sahadu Shete Society’s Arts, Commerce and Science College, Deolali Camp
- Delivered Guest Lecture on “Quantum Chemistry” at K. J. Somaiya Arts, Commerce and Science College, Kopargaon.
- Delivered Expert lecture talk on “Biomolecules” at K. K. Wagh Arts, Commerce and Science College, Nashik
- Delivered Expert lecture talk on “Investigation of molecular study and Phase rule” at Arts, Commerce and Science College, Nandgaon. Nashik
- Delivered Expert lecture talk on “Phase Rule” at K. K. Wagh Arts, Commerce and Science College, Nashik
- Delivered Expert lecture talk on “Adsorption” at K. K. Wagh Arts, Commerce and Science College, Nashik
- Delivered Expert lecture talk on “Career Opportunities after Graduation in Chemistry” M. V. P. Samaj’s G. M. D. Arts, B. W. Commerce and Science College, Tryambakeshwar, Nashik.
- Delivered Expert lecture talk on “Stereochemistry” Arambh Arts, Commerce and Science College, Nashik.
- Delivered Expert lecture talk on “Research Methodology and Intellectual Property Rights ” at Shri Eknath Sahadu Shete Arts, Commerce and Science College, Deolali Camp
- Delivered Expert lecture talk on “Quantum Chemistry” at K. J. Somaiya Arts, Commerce and Science College, Kopargaon
- Guest Lecture on “IPR” at JDC Bytco Institute of Management Studies and Research

- Delivered Expert lecture talk on “Intellectual Property Rights” at K.T.H.M College, Nashik
- Resource Person for “Patent Filing at Intellectual Property Rights at M. V. P. Samaj’s Arts, Commerce and Science College, Vadner Bhairav.
- Resource Person for on occasion of “Mahaparinirvahan Din” Shri Eknath Shahadu Shete Arts, Commerce and Science College.
- Invited talk on “Synthesis, characterization of C-N functionalized pyrazolone scaffolds as potent antimicrobial, larvicidal agent with DFT calculations, molecular docking, molecular dynamic stimulation studies and PASS analysis” for Cassyni Research Talk, London, U. K.

c. COLLEGE COMMITTEES

- Worked as Chairman for Science Association from 2013 to 2015
- Member of IQAC committee
- Member of admission committee
- Worked as member of organizing committee for International Conference for Biodiversity: Utilization and Conservation
- Worked as coordinator of teacher parent meet for F. Y. B.Sc & T. Y. B. Sc. class.
- Worked as jury member for science Poster Competition
- Worked as jury member for Annual Gathering
- Worked as jury member for Annual Sports
- Worked as member of Health Checking Committee for F.Y.B.Sc Students
- Worked as member of organizing committee for State level Seminar for Recent Advances and Opportunities for Animal Sciences
- Worked as member of organizing committee for International Conference for Mathematical Tools for Development of Physical Sciences
- Worked as member of Publicity Committee
- Worked as member of organizing committee for Inter collegiate Science Quiz Competition
- Worked as member of organizing Periodic Table Competition
- Worked as member of Library Vachan Sanskruti Committee

- Worked as member of Reservation Cell
- Worked as member of Harassment Committee
- Worked as member of Alumni Committee
- Worked as member of Placement Committee

d) Community Services:

- Started Soil and Water Testing laboratory in college.
- Participates in tree plantation programme
- Participated in different rallies such as road safety, AIDS, Environment day etc
- Participated in Blood Donation Camp.
- Attended short term course on “Gender Sensitization