

Dr. Neeta J. Unde (M.Sc., M.Phil., Ph.D.)

Present position

- Assistant Professor

Contact Details



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Work Experience

- **Teaching:** 17 years
- **Research:** 9 years

Personal Profile

I am working as assistant professor in the Department of Chemistry, Fergusson College (Autonomous), Pune from past 17 years. My teaching specialization is Inorganic chemistry and research interest is Material Science.

Course(s) Taught (Only Titles)

1. Coordination Chemistry
2. Symmetry and Group Theory
3. Bioinorganic Chemistry
4. Main Group Chemistry
5. Inorganic Reaction Mechanism
6. Organometallic Chemistry
7. Metal Cluster Compounds
8. NMR Spectroscopy

Field of Specialization/Areas of Interests

- **Specialization:** Inorganic Chemistry
- **Area of Interest:** Nanomaterials, Material science

Education

- **Ph.D. – Material Chemistry:** from 2011 to 2016 Department of Chemistry, SPPU
- **M.Phil.- (Material Chemistry):** from 2007 to 2009 Department of Chemistry, SPPU

- **Master of Science (Inorganic Chemistry)** 2005 Department of Chemistry, SPPU
- **Bachelor of Science- (Chemistry):** 2003 ASC college, Hadapsar

Member of College Committees/ Professional Bodies and Others

College Level: Member of Board of Studies

Research Publications in National and International Journals

S. No	Document Details	Authors	Year	Source Details	ISBN/ ISSN	Publisher
1	<u>Investigation on solid state pyrolytic decomposition of bimetallic fumarate and tartrate precursors of Co (II), Ni (II) and Zn (II) with manganese</u>	Neeta J.Karale & et.al.	2022	Materials Today: Proceedings	https://doi.org/10.1016/j.matpr.2021.07.057 2214-7853	Elsevier
2	<u>An investigation of the formation, the particulate properties and the rheological behaviour of cerium vanadate and zirconium titanate prepared by dicarboxylate coprecipitation</u>	Neeta J.Karale & et.al.	2022	Bulletin of Materials Science	https://doi.org/10.1007/s12034-021-02641-w 0973-7669	Indian Academy of Sciences
3	<u>Synthesis, structural and electrical conduction of some dual doped semiconductor oxides nanoparticles for photocatalytic degradation of Victoria blue-B and brilliant yellow ...</u>	Neeta J.Karale- Unde & et.al.	2021	Journal of Materials Science: Materials in Electronics	https://doi.org/10.1007/s10854-021-05237-6 0957-4522	Springer US

4	<u>Preparation and Characterization of Nanosized Substituted Perovskite Compounds with Orthorhombic Structure</u>	Neeta J.Karale & et.al.	2021	Physics and Chemistry of Solid State	https://doi.org/10.15330/pcss.22.4.664-686	UGC CARE
5	<u>Structural, electrical and magnetic properties of substituted pyrochlore oxide nanoparticles synthesized by the co-precipitation method</u>	Neeta J.Karale & et.al.	2021	Physics and Chemistry of Solid State	https://doi.org/10.15330/pcss.22.2.353-371	UGC CARE
6	<u>Synthesis and physicochemical properties of doped nano oxides-dilute magnetic semiconductors</u>	Neeta J.Karale & et.al.	2019	Journal of Materials Science: Materials in Electronics	https://doi.org/10.1007/s10854-019-01685-3 0957-4522	Springer US
7	<u>Chemical synthesis and characterization of nano-sized rare-earth ruthenium pyrochlore compounds Ln 2 ...</u>	Neeta J.Karale & et.al.	2017	Bulletin of Materials Science	https://doi.org/10.1007/s12034-017-1491-0 0973-7669	Indian Academy of Sciences
8	<u>Synthesis and properties of cobalt substituted strontium cadmium W-type hexaferrites nanoparticles</u>	Neeta J.Karale & et.al.	2016	Journal of Alloys and Compounds	https://doi.org/10.1016/j.jallcom.2016.05.040 0925-8388	Elsevier
9	<u>Impact of Codoped on Structural, Electrical and Magnetic Properties of M-Type Strontium Hexaferrite Nanoparticles Synthesized by Soft Chemical Route</u>	Neeta J.Karale & et.al.	2022	Materials Today: Proceedings	Under process	Elsevier

Participation in Conferences/Seminars/Symposia/Workshop:**Participation in Conferences**

S. No	Document Details	Authors	Year	Conference Details	Organised by
1	Synthesis of Nanocrystalline ferrites by tartarate coprecipitation method	N.J. Karale & et.al	Nov. 2009	ICC 2009 Patan (Gujrat)	ICC
2	Synthesis and characterization of ruthenium pyrochlore oxides	N.J. Karale & et.al	March 2009	Recent trends in chemistry	Dept.of chemistry, University of Pune.
3	Preparation and study of physical properties of metal ruthenate nanoparticles	N.J. Karale & et.al.	January, 2010	International Conf. on Emerging Trends in Chemistry P. 87	Department of Chemistry, University of Pune, Pune
4	Synthesis,characterisation and photolytic behavior of doped TiO ₂ and ZnO	N.J. Karale & et.al	Nov.2013	ICC 2013 Dharwad (Karnatak) Page-252	ICC
5	Study of structural and electrical conduction behavior of Ru-based pyrochlores	N.J. Karale & et.al	December 2014	National Conf. on Advances in Chemical Sciences with special Reference to Molecular Spectroscopy, Material Sciences & Organic Electronics (NCACS-2014), P. 14	Department of Chemistry, F. C. College, Pune

6	Preparation and study of physical properties of rare-earth substituted pyrochlore oxides	N.J. Karale & et.al	March, 2016	International Conf. on Functional Eco-friendly Smart Emerging Materials, P. 61	PDEA'S, Baburao Ghopal College, Sangavi, Pune
7	Synthesis, characterisation and photolytic behavior of Bi_2O_3 using visible light	N.J. Karale & et.al	Dec.2016	ICC 2016	H.V.Desai college,Pune
8	“Investigation on Solid State Pyrolytic Decomposition of Bimetallic Fumarate and Tartrate Precursors of Co (II), Ni (II) and Zn (II) with Manganese”	N.J. Karale & et.al	July 2021	2021 Global Conference on Recent Advances in Sustainable Materials (GC-RASM 2021)	A.J. Institute of Engineering & Technology, Karnataka, India during 29 - 30, July 2021.
9	“Impact of Codoped on Structural, Electrical and Magnetic Properties of M-Type Strontium Hexaferrite Nanoparticles Synthesized by Soft Chemical Route”	N.J. Karale & et.al	Nov.2021	2021 Third International Conference on Recent Advances in Materials and Manufacturing (ICRAMM 2021)	Department of Mechanical Engineering, D Y Patil College of Engineering and Technology, Kolhapur, Maharastra, India.

Workshops / Seminar Attended:

S. N	Title	Type	Duration	Organizer
1	Next two decades of chemical sciences and technology	workshop	23rd Sept.2011	NCL and Dept.of Chemistry,Pune University
2	Future Challenges and Opportunities for Chemistry Students	Seminar	22nd Dec.2011	Dept. of Chemistry, Pune University
3	Workshop on Chromatographic Techniques	workshop	30 Sept. to 2nd Oct.2011	Dept. of Chemistry, Pune University
4	National workshop on Scientific /Research paper writing	Workshop	16 to 17th dec.2014	National academy of science,India
5	SEnsitisation and technological empowerment of women teachers/researchers for their S & T endeavours.	Workshop	25th Sept.2015	National academy of science,India
6	Soft skill development	workshop	8th March 2016	Indian women Scientists association,Pune
7	Basics of Machine Learning with R	FDP	29-30th March 2017	Fergusson college,Pune.
8	Effective use of Learning management system,Google classroom and moodles	FDP	5th-12th June 2020	NES Ratnam arts science and commerce college,Mumbai
9	“Innovative Teaching And Research in Science: Exploring The New Horizons”	FDP	10th-15th June 2021	Science Forum in Association with IQAC, Government First Grade College,Vijayanagar, Karnataka
10	INSIGHT IN TO ANALYTICAL TECHNIQUES AND ITS APPLICATION	FDP	21st -25th June 2021	Aacharya Institute Of Graduate Studies,Bengaluru. India

Events Organized/Coordinated:

Sr. No	Name of the Event	Name of organizing Institute/ College/University	Nature of contribution	Dates
1	National conference on “Advances in Chemical Sciences with reference to Molecular Spectroscopy, Material Sciences and Organic Electronics”	Fergusson College	Member of organizing committee	2014

Additional skills/Activities

1. SOEC teacher coordinator from 2021 onward
2. Departmental OBE coordinator 2020 onward
3. Mentoring activity.