

Dr. Chitrlekha Kotian
Associate Professor,
Vice Principal & COE
Royal College of Arts, Science and Commerce,
(Autonomous)
Mira Road, District Thane, Maharashtra, India
Email: chitrlekharewa1998@gmail.com

Educational Qualifications:

- BSc (Chemistry) (University of Mumbai)
- MSc (Inorganic Chemistry), (University of Mumbai)
- PhD (Chemistry) (University of Mumbai)
- Topic of PhD Thesis: Environmental Accumulation, Transfer Factors and characterization of Pollutants released near Vasai region

Professional Experience:

- Vice Principal of Science and Computer Science Section at Royal College of Arts Science and Commerce since January 2023.
- Controller of Examinations at Royal College of Arts, Science and Commerce (Autonomous) since June 2024
- Member of IQAC Core team Royal College of Arts, Science and Commerce (Autonomous) since June 2021
- Associate Professor, Department of Chemistry, Royal College of Arts, Science and Commerce.
- 30 years teaching experience of Inorganic Chemistry F. Y /S. Y/T.Y. BSc level.
- Recognized Post Graduate Faculty of University of Mumbai
- 2016- 2022 date visiting faculty at Department of Chemistry Thakur College of Science, Kandivali, Mumbai for MSc (Inorganic Chemistry) lectures

Research Areas:

- Environmental Chemistry
- Food Chemistry
- Chemical contamination studies
- Chemistry Education

Research Projects:

- Qualitative and quantitative estimation of commercial samples of Abharak and Trivanga bhasma (Principal Investigator Minor research project sponsored by University of Mumbai)
- Effect of fertilizers on the cation exchange capacity of farming soils of Vasai region. (Co-investigator, Minor research project sponsored by University of Mumbai)
- Chemical analysis and migration studies of epichlorohydrin and other chemical contaminants in plastic and paper tea bags. (Principal Investigator, Minor research project, University of Mumbai)
- Sono chemical Synthesis and Physicochemical Characterization of Iron based Indian Nanomedicine (Principal Investigator, Minor Research Project, University of Mumbai)

Publications:

- Metallurgy of Iron in Ancient India: Techniques, Innovations and Legacy, Journal of Technology, Volume-41, Issue 1,213-220,January 2026
- Tailored MIL-101(Cr) @ZCMFC Composite: a next -generation material for energy storage and photochemical applications, Ionics, 1-16, November 2025
- Synthesis Methods of Nanomaterials: A review with detailed experimental examples, International Journal of Science and Technology,16(2) 1-6, 2025.
- The Environmental Impact of Nanomaterials: A critical analysis, Journal of Emerging Technologies and Innovative Research, Vol 12,Issue 4,147-151, April 2025.
- Heavy Metal Pollution in India: Current Trends and Perspectives, International Journal of Science and Healthcare research, Vol 10, Issue-1,158-165, January-March 2025
- Sustainable Practices in Ancient India and Egypt, International Journal of Advanced and Applied Research, International Journal of Advance and Applied Research, Vol 5,Issue - 46,December 2024.
- Recovery and Reuse of Nickel (II) from Ni-Dimethylglyoxime complex: A sustainable laboratory practice. International Journal of Advanced Research,12(04) 1159-1164, May 2024.
- Metallurgical Extraction of Copper in Ancient Egypt, International Journal of Research and Review, Volume11;Issue 2; February 2024.
- Learner Perceptions on the use of YouTube channel created for a chemistry undergraduate course, Xplore, The Xavier's Research Journal, Vol 11, Issue 1,6-10, March 2020.
- Sono chemical Synthesis and Physicochemical Characterization of Iron based Indian Nanomedicine, International Journal of Scientific & Technology Research,Volume9-Issue 3, March 2020.
- Heavy Metal Contamination of Tea leaves and Tea bag infusions consumed in Mumbai region, International Journal of Basic and Applied Research, Vol 9,614-625,2018
- Effect of long-term use of synthetic fertilizers on the cation exchange capacity of farming soils of Vasai region, Sanshodhana-1,39-47,2014.
- Qualitative and Quantitative assessment of Commercial samples of Baharat and Trivanga Bhasma, Sanshodhana-1, 48-60,2014
- Accumulations of heavy metals in coastal sediments of Vasai region, Proceedings of ISBT Sikkim December 2008
- Heavy metal contamination of water in coastal and inland areas of Vasai region, India

Research Journal of Chemistry and Environment, Vol 2(2)30-35,2008.

- A study of water pollution levels in Vasai region, Journal of Industrial Pollution control 24(1),63-68,2008,

Invited Talks/Paper Presentations:

- Paper presentation on green synthesis of Dihydropyrimidones with Transition Metal based Nano catalyst at National Conference on Advances in Polymer Science and Technology Organized by Department of Chemistry, University of Mumbai, March 2024
- Resource person at 5-day FDVP on Sustainable Knowledge Management in Academics and Research Organized by St. Peter's Institute of Higher Education and Research in Collaboration with ACE International Pte Ltd ,Singapore. Topic: Interactive methods and Technologies in Teaching Learning Process Sept 2023
- Resource person at 5-day FDP on Recent Advances and Trends in the Analytical Instrumentation Techniques Organized by St. Peter's Institute of Higher Education and Research in Collaboration with ACE International Pte Ltd ,Singapore . Topic: Principle, Instrumentation and Applications of UV-Vis Spectroscopy, Sept 2022.
- Resource person at Academic Performance enhancement workshop for T.Y.B. Sc students at Department of Chemistry, Bhavans College, Mumbai March 2017
- Paper Presentation on Physicochemical characterization and heavy metal content of ayurvedic bhasmas, National symposium on Frontiers in applied biological and chemical sciences, Research center of Microbiology department C.H.M College, Thane February 2017
- Paper Presentation on Environmental Risk assessment and associated disease burden in Vasai region, International conference on climate change and sustainability, Thakur college in association with University of Mumbai and Edith Cowan University, Australia December 2016
- Paper Presentation on Hazardous waste management in Mira Bhayandar and Vasai region, Solutions and concerns, UGC National level workshop on Green Chemistry Elphinstone College, Mumbai June 2015
- Paper Presentation on Comparative study of heavy metal concentration in sediments by AAS and ICP-AES methods, UGC sponsored National level conference on Recent advances in Analytical Chemistry, Birla College, August 2012
- Paper Presentation on Impact of Industrialization and human settlement on the quality of estuarine water of Vasai region, International Conference on global challenges and role of chemistry in giving their solutions, Bangkok, June 2011
- Paper Presentation on Accumulation of heavy metals in coastal sediments of Vasai region, International Conference of International society of Biotechnology, Sikkim, December 2008
- Paper Presentation on A study of water pollution levels in Vasai region, National Conference of National Environmental Science Academy, Panjab University, Chandigarh, September 2006

Invited Talks/Paper Presentations:

- Paper presentation on green synthesis of Dihydropyrimidones with Transition Metal based Nano catalyst at National Conference on Advances in Polymer Science and Technology Organized by Department of Chemistry, University of Mumbai, March 2024
- Resource person at 5-day FDVP on Sustainable Knowledge Management in Academics and Research Organized by St. Peter's Institute of Higher Education and Research in Collaboration with ACE International Pte Ltd ,Singapore. Topic: Interactive methods and Technologies in Teaching Learning Process Sept 2023
- Resource person at 5-day FDP on Recent Advances and Trends in the Analytical Instrumentation Techniques Organized by St. Peter's Institute of Higher Education and Research in Collaboration with ACE International Pte Ltd ,Singapore . Topic: Principle, Instrumentation and Applications of UV-Vis Spectroscopy, Sept 2022.
- Resource person at Academic Performance enhancement workshop for T.Y.B. Sc students at Department of Chemistry, Bhavans College, Mumbai March 2017
- Paper Presentation on Physicochemical characterization and heavy metal content of ayurvedic bhasmas, National symposium on Frontiers in applied biological and chemical sciences, Research center of Microbiology department C.H.M College, Thane February 2017
- Paper Presentation on Environmental Risk assessment and associated disease burden in Vasai region, International conference on climate change and sustainability, Thakur college in association with University of Mumbai and Edith Cowan University, Australia December 2016
- Paper Presentation on Hazardous waste management in Mira Bhayandar and Vasai region, Solutions and concerns, UGC National level workshop on Green Chemistry Elphinstone College, Mumbai June 2015
- Paper Presentation on Comparative study of heavy metal concentration in sediments by AAS and ICP-AES methods, UGC sponsored National level conference on Recent advances in Analytical Chemistry, Birla College, August 2012
- Paper Presentation on Impact of Industrialization and human settlement on the quality of estuarine water of Vasai region, International Conference on global challenges and role of chemistry in giving their solutions, Bangkok, June 2011
- Paper Presentation on Accumulation of heavy metals in coastal sediments of Vasai region, International Conference of International society of Biotechnology, Sikkim, December 2008
- Paper Presentation on A study of water pollution levels in Vasai region, National Conference of National Environmental Science Academy, Panjab University, Chandigarh, September 2006