# FACULTY PROFILE



Name: Dr Piyush Gupta

**Designation:** Assistant Professor

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# **Professional Qualification:**

- Awarded Ph.D. in Chemistry in 2007 from Dr. B. R. Ambedkar University, Agra
- M.Sc. (Organic Chemistry) in 2000 with 1st Division from Dr. B.R. Ambedkar University, Agra
- B.Sc. in 1998 with 1st Division from Dr. B.R. Ambedkar University, Agra
- Intermediate in 1995 with 1st Division from U.P. Board
- High School in 1993 with 1st Division from U.P. Board

### **Publications (Journals & Conferences)**

Gupta, P., and Gupta, N. (2022). Potential role of biochar in water treatment. Desalination and water treatment, 251, 79-104.

Gupta, P., Nagpal, G., and Gupta, N. (2021). Fly ash-based geopolymers: an emerging sustainable solution for heavy metal remediation from aqueous medium. Beni-Suef university journal of basic and applied sciences, 10(89), 1-29.

Gupta, P. (2021). Plastic waste management, a concern for community. The holistic approach to environment, 11(2), 49-66.

Gupta, P. (2015). Adverse Impacts of changing climatic conditions on the environment due to increasing pollution. International journal of life sciences, 3(4), 403-408.

Gupta, P., and Jain, S. (2015). Characterization and biological activity of metal complexes of thiazolines. International journal of advanced research in engineering technology and sciences, 2(10), 8-13.

Gupta, P. (2015). Paradigm shift in water management: rainwater harvesting. International research journal of science and engineering, 3(3), 120-124.

Gupta, P., and Jain, S. (2015). Analysis of some transition metal complexes of biologically active ligands. International journal of education and science research review, 2(3), 96-98.

Parthvi, R., Parthvi, P., Agarwal, J., Gupta, P., and Singh, R.P. (2014). Heavy metal contamination of different non-alcoholic drinks. Enpro Journal, 4(1), 25-33.

Parthvi, R., Parthvi, P., Agarwal, J., Gupta, P., and Singh, R.P. (2014). Heavy metal contamination of different spices. Enpro Journal, 3(3), 34-52.

Gupta, P., and Varshney, P. (2013). Physicochemical properties of drinking water in some areas of Modinagar, Ghaziabad (U.P.). International journal of engineering and science research, 3(6), 281-283.

Varshney, P., Gupta, P., and Sharma, G. (2013). Calculation and analysis of thermodynamic parameters of di-substituted pyridine. International journal of application or innovation in engineering and management, 2(5), 137-142.

Yadav, S., Gupta, P., Vats, P., and Singh, R.P. (2011). Use of pyroaurite type sorbent, activated carbon and flyash in reducing COD of domestic wastewater. Enpro Journal, 1(1), 30-36.

Gade, J., Jain, B., Rawat, R., Sharma, P.P., and Gupta, P. (2022). An effective nanoparticles for drug delivery system. Materials Today: Proceedings, 51(1), A1-A7.

Gupta, P. (2014). Various approaches to environmental protection for sustainable development. National Conference on New Approach in Chemical Sciences and Advancement in Renewable Energy (NCNACSAR-2014) held at SRM University, NCR Campus, Modinagar, India, April 4-5, 2014, pp. 132-137.

Gupta, P., and Gupta, J. (2013). Multidisciplinary aspects of computer science in biomedical engineering, 2nd International Conference on Recent Trends in Computing (ICRTC-2013) held at SRM University, NCR Campus, Modinagar, India, October 4-5, 2013, pp. 8-12.

Gupta, P., Gupta, S., Suman, R., Gupta, R., Pathak, B., and Singh, R.P. (2005). Elimination of Hg(II) from aqueous solution using mesoporous sorbent, ceralite, activated carbon, goethite and rica husk. Special Issue, NSE-14, Environmental Geochemistry, 8(1&2), Osmania University, Hyderabad, June 5-7, 2005, pp. 335-339.

Gupta, R., Suman, R., Gupta, P., Singh, Y., Gupta, S., and Singh, R.P. (2005). Removal of Cu(II), Ni(II) and Zn(II) ions from aqueous solutions using modified silica gel, Special Issue,

NSE-14, Environmental Geochemistry, 8(1&2), Osmania University, Hyderabad, June 5-7, 2005, pp. 231-236.

Pathak, B., Suman, R., Gupta, P., Gupta, R., Nanda, D.R., and Singh, R.P. (2005). Development of a variable stirring rate system for a better performance of an anaerobic sequencing batch reactor treating low-strength waste water. Special Issue, NSE-14, Environmental Geochemistry, 8(1&2), Osmania University, Hyderabad, June 5-7, 2005, pp. 250-255.

Singh, R.P., Gupta, P., Pathak, B., Suman, R., Gupta, R., and Gupta, S. (2004). Preparation and Characterization of a pyroaurite type composite material for the removal of mercury ions from water, International Conference on Recent Advances in Composite Materials (ICRACM-2004), Banaras Hindu University, Varanasi (India), December 17-19, 2004, pp. 555-558.

Singh, R.P., Gupta, P., Chauhan, M.S., Pathak, B., Singh, A., Suman, R., and Gupta, R. (2004). Removal of Cd(II) from aqueous solution using pyroaurite type sorbent, ceralite, activated carbon, goethite and rice husk. Thirteenth National Symposium on Environment (NSE-13), North-Eastern Hill University, Nehu Campus, Shillong (Meghalaya), June 5-7, 2004, pp. 306-311.

Singh, R.P., Pathak, B., Gupta, P., Chauhan, M.S., Singh, A., and Nanda, D.R. (2004). Comparison of COD removing potentials of chitosanized carbon, activated carbon and fly ash. Thirteenth National Symposium on Environment (NSE-13), North-Eastern Hill University, Nehu Campus, Shillong (Meghalaya), June 5-7, 2004, pp. 481-485.

Singh, R.P., Suman, R., Pathak, B., Gupta, P., and Gupta, R. (2004). Soil washing with surfactants to remove metal contaminants. Thirteenth National Symposium on Environment (NSE-13), North-Eastern Hill University, Nehu Campus, Shillong (Meghalaya), June 5-7, 2004, pp. 287-292.

Singh, A., Gupta, P., Kulshrestha, R.R., Gupta, R., and Sharma, A. (2003). Comparison of COD removing potentials of synthesized pyroaurite type sorbent, activated carbon and fly ash. National Symposium on Biochemical Sciences: Health and Environmental Aspects (BSHEA-2003), Faculty of Science, Dayalbagh Educational Institute, Agra, October 2-4, 2003, pp. 192-194.

Singh, R.P., Pal, R.K.S., Gupta, P., Gupta, S., and Gupta, R. (2003). Removal of metals from contaminated soils using edta incorporating resin trapping techniques. National Symposium on Biochemical Sciences: Health and Environmental Aspects (BSHEA-2003), Faculty of Science, Dayalbagh Educational Institute, Agra, October 2-4, 2003, pp. 241-244.

Singh, R.P., Gupta, S., Gupta, P., Gupta, R., Nanda, D.R., and Pal, R.K.S. (2003). Stabilization of heavy metals and radionuclides by sorbents containing reactive phosphate, National Symposium on Biochemical Sciences: Health and Environmental Aspects (BSHEA-2003), Faculty of Science, Dayalbagh Educational Institute, Agra, October 2-4, 2003, pp. 251-253.

Singh, R.P., Singh, A., Chauhan, M.S., Pathak, B., Kulshrestha, R.R., Gupta, P., and Prasad, F.M. (2003). Depressurization of soil for mitigation of vapour intrusion of 1,1-Dichloroethene in homes. National Symposium on Biochemical Sciences: Health and Environmental Aspects (BSHEA-2003), Faculty of Science, Dayalbagh Educational Institute, Agra, October 2-4, 2003, pp. 330-334.

Singh, R.P., Suman, R., Gupta, N., Singh, A., Gupta, P., and Pathak, B. (2003). Quantification of heavy metal mobility through a soil column, Twelfth National Symposium on Environment (NSE-12) held at Department of Physics, H.N. Bahuguna Garhwal University, Badshahi Thaul Campus, New Tehri, Tehri Garhwal, June 5-7, 2003, pp. 462-468.

Gupta, P. (2021). Recycling of biomass waste into biochar for heavy metal remediation from aqueous solution. Procs. Virtual International Conference on Smart Waste Management-2021 (SWM-2021) organized by SRM institute of Science and Technology, Kattankulathur, Tamil Nadu, India from 11-12 October, 2021, p. 69.

Gupta, P. (2021). Biomass derived biochar for dyes removal from aqueous environment. Book of Abstracts, 2nd International Conference on Instigating Research in Materials, Energy, and Environment (ICIRMEE-2021) organized by Easwari Engineering College, Ramapuram, Affiliated to Anna University, Chennai, India from 6-7 October, 2021, p. 16.

Gupta, P. (2020). Recent trends in waste to energy solutions for solid waste management, Procs. Virtual National Conference on Smart Waste Management-2020 (SWM-2020) organized by SRM institute of Science and Technology, Kattankulathur, Tamil Nadu, India in association with Indian Institute of Chemical Engineers (IIChE), Chennai Regional Center, 6-7 November, 2020, p. 30.

Gupta, P. (2017). Harvesting the potential of chemically modified ecofriendly cellulosic materials for heavy metal remediation from wastewater: an overview. 3rd International Conference on Global Trends in Pure and Applied Chemical Sciences (ICGTCS-2017), SRM University, NCR Campus, Modinagar, 8-9 Dec 2017.

Gupta, P., Verma, D.K., Maheshwari, S. (2016). Optimization of eco-friendly dyeing methods of polyamide fibres with 1,2-dihydroxy anthraquinone using natural and metallic mordants at low temperatures. International Conference on Global Initiatives in Applied Sciences and Green Technologies (GiAgT-2016) September 9-11, 2016, p. 38.

Verma, D.K., Gupta, P., Maheshwari, S. (2016). Synthesis of nickel nanorods and their conversion into nanoparticles. International conference on global initiatives in applied sciences and green technologies (GiAgT-2016) September 9-11, 2016, p. 33.

Maheshwari, S., Verma, D.K., and Gupta, P. (2016). Cytological study of arsenic tolerance in some accession of barley. International conference on global initiatives in applied sciences and green technologies (GiAgT-2016) September 9-11, 2016, p. 44.

Singh, R.P., Gupta, S., Pathak, B., Gupta, R., Suman, R., and Gupta, P. (2004). Preparation and characterization of chemically modified MCM-41 type adsorbent for toxics in water, International Conference on Recent Advances in Composite Materials (ICRACM-2004), Banaras Hindu University, Varanasi (India), December 17-19, 2004, pp. 98.

Singh, R.P., Pathak, B., Gupta, S., Gupta, R., Gupta, P., and Suman, R. (2004). Preparation and Characterization of chemically modified and chitosanized pseudoactivated carbon to remove surfactants. International Conference on Recent Advances in Composite Materials (ICRACM-2004), Banaras Hindu University, Varanasi (India), December 17-19, 2004, pp. 98.

Singh, R.P., Gupta, R., Suman, R., Gupta, S., Gupta, P., and Pathak, B. (2004). Synthesis of silica based organic-inorganic hybrid materials for the extraction of Cd2+ ions from water. International Conference on Recent Advances in Composite Materials (ICRACM-2004), Banaras Hindu University, Varanasi (India), December 17-19, 2004, pp. 96-97.

Singh, R.P., and Gupta, P. (2004). Greening of our chemical industries. 12th International Conference on the Greening of Industry Network (GIN)-Partnerships for Sustainable Development, Hong Kong Convention and Exhibition Centre, November 7-10, 2004.

Singh, R.P., and Gupta, P. (2004). Geochemical changes releasing arsenic from the aquifer. 32nd International Geological Congress, Florence, Italia, August 20-28, 2004.

Singh, R.P., and Gupta, P. (2004). Remediation of mercury using a pyroaurite type sorbent. 7th International Conference on Mercury as a Global Pollutant (ICMGP), Ljubljana, Slovenia, June 27-July 2, 2004.

Gupta, P., Gupta, R., Sharma, A., and Singh, R.P., (2004). Sorption solidification of selected heavy metals from water by a synthesized pyroaurite type sorbent. 12th Annual Session of APSI Scientists Meet, National Seminar on Current Issues of Plant Sciences: Health & Environmental Aspects, St. John's College, Agra), Oct. 8-9, 2004, pp. 22-23.

Gupta, R., Gupta, P., Sharma, A., and Singh, R.P. (2004). Functionalized hexagonal mesoporous silica (FHMS) for the sorption of Cr, Ni, Cu, Zn and Cd from electroplating wastewater, 12th Annual Session of APSI Scientists Meet, National Seminar on Current Issues of Plant Sciences: Health & Environmental Aspects, St. John's College, Agra), Oct. 8-9, 2004, pp. 23.

Sharma, A., John, R.V., Gupta, P., Gupta, R., and Singh, R.P. (2004). Fly ash for COD Removal from dyeing wastewater. 12th Annual Session of APSI Scientists Meet, National Seminar on Current Issues of Plant Sciences: Health & Environmental Aspects, St. John's College, Agra), Oct. 8-9, 2004, pp. 23-24.

Singh, R.P., Chauhan, M.S., Gupta, P., Gupta, N., Singh, A., Suman, R., Pathak, B., and Gupta, S. (2003). Removal of arsenic from aqueous solution using pyroaurite type sorbent, activated carbon, goethite and rice husk. National Conference on Groundwater Management-Future Challenges and its Impact on Environment held at Department of Geology, Aligarh Muslim University, Aligarh, March 28-29, 2003, pp. 103.

Singh, R.P., Suman, R., John, R.V., Singh, A., Gupta, P. Kulshrestha, R.R., Pathak, B., and Gupta, S. (2003). Assessment of groundwater contamination by interaction of loamy soil with salt of heavy metals. National Conference on Groundwater Management-Future Challenges and its Impact on Environment held at Department of Geology, Aligarh Muslim University, Aligarh, March 28-29, 2003, pp. 101.

Singh, R.P., Gupta, N., Suman, R., Singh, A., Gupta, P., Gupta, S., and Pathak, B. (2003). Rooftop rain water harvesting to recharge groundwater reservoir of a group of houses. National Conference on Groundwater Management-Future Challenges and its Impact on Environment held at Department of Geology, Aligarh Muslim University, Aligarh, March 28-29, 2003, pp. 137.

Singh, R.P., Chauhan, M.S., Gupta, P., Singh, A., Suman, R., Kulshrestha, R.R., John, R.V., and Gupta, S. (2003). Appropriate remediation technologies for arsenic contaminated groundwater, National Seminar on Emerging Chemical Technologies in Industries held at Vijaya Raje Govt. Girls P.G. College Morar, Gwalior, February 2003, pp. 1-2.

Singh, R.P., Kulshrestha, R.R., Gupta, N., Suman, R., Singh, A., Gupta, P., and Pathak, B. (2003). Fluoride uptake by fly ash, National Conference on Groundwater Management-Future Challenges and its Impact on Environment held at Department of Geology, Aligarh Muslim University, Aligarh, March 28-29, 2003, pp. 1.

Singh, R.P., Suman, R., Gupta, S., Singh, A., and Gupta, P. (2003). Interaction of Cr, Mn, Fe, Ni, Cu, Zn, Cd and Pb with sandy and silty loams. National Conference on Groundwater Management-Future Challenges and its Impact on Environment held at Department of Geology, Aligarh Muslim University, Aligarh, March 28-29, 2003, pp. 3.

Singh, R.P., Gupta, P., and Prasad, F.M. (2003). Synthesis of a pyroaurite type sorbent for the removal of Cd from water, 5th Indian Agricultural Scientists and Farmer's Congress of Bioved Research Society held at Vigyan Parishad, University of Allahabad, February 2, 2003, pp. 64.

Singh, R.P., Gupta, P., and Prasad, F.M. (2003). Mechanisms of microbial metal resistance, 5th Indian Agricultural Scientists and Farmer's Congress of Bioved Research Society held at Vigyan Parishad, University of Allahabad, February 2, 2003, pp. 63-64.

Gupta, K.C., and Gupta, P. (2002). Synthesis of some naturally occuring anthraquinones as alternative to natural dyes. 72nd Annual Session and National Symposium of The National Academy of Sciences, India on 'Biodiversity: A Scientific Approach-Agenda for the 21st Century', North-Eastern Hill University, Shillong, October 2002 (Index No. A/27/2002).

# Awards and Achievements

- Awarded with Senior Research Fellowship by Council of Scientific and Industrial Research (CSIR), New Delhi (1.12.2002-31.3.2005)
- Awarded with Research Scholarship for Ph.D. by Dr. B.R. Ambedkar University, Agra, 2002

# Workshops/Seminars/FDPs

- Participated in International FDP Programme-2020 titled "Novel materials for energy and biomedical (Covid-19) healthcare applications" organized by Department of Science and Humanities, M. Kumarasamy College of Engineering, Karur from 11-16 May 2020
- Participated in FDP Programme-2018 titled "Eruditia" held at SRM University, NCR Campus, Modinagar, Duration: two week, 12-23 June, 2018
- Participated in FDP Programme-2016 titled "Contemporary trends in research and teaching methodologies for professional development" held at SRM University, NCR Campus, Modinagar, Duration: one week, 4-10 July, 2016
- Participated in FDP Programme-2015 titled "Innovative approaches in mathematical and statistical sciences" held at SRM University, NCR Campus, Modinagar, Duration: one week, 6-11 July, 2015
- Short Term Course (STC) on "Research Methodology (No. 472/UGC-ASC/LU)" organized at Academic Staff College, Lucknow University, Lucknow, sponsored by UGC. Duration: one week (14-19 July, 2014).
- Participated in FDP Programme-2014 titled "Teaching Ethics" held at SRM University, NCR Campus, Modinagar in association with Computer Society of India, Duration: 1 day, 24 January, 2014
- Participated in FDP Programme-2012 titled "Paradigm Shift on Pedagogy & Eim" held at SRM University, NCR Campus, Modinagar Duration: 2 days, 8-9 February, 2012
- Short Term Training Course (STTC) on "Use of Statistical Techniques in Social Science Research" (24.07.04-04.08.04) organized at Deptt. of Statistics, St. John's College, Agra from Sponsored by Indian Council of Social Science Research (ICSSR), Ministry of Human Resource Development, Government of India, New Delhi. Duration: 12 days
- Short Term Training Program (STTP) on A National School on A New dimension of NMR "From Molecules to Human Behaviour" (15-25 June, 2004) held at Institute of Himalayan Bioresource Technology (IHBT-CSIR Lab), Palampur, Himachal Pradesh and Regional Research Laboratory (RRL), Jammu, India. Duration: 11 days
- Short Term Training Program (STTP) on "Printing with Natural Dyes" (27-31 Jan, 2004) organized at Deptt. of Clothing and Textile, College of Home Science, Maharana Pratap University of Agriculture and Technology, Udaipur (Rajasthan), India, Sponsored by All India Coordinated Research Project on Home Science (Clothing and Textiles), ICAR, New Delhi. Duration: 5 days

### Work Experience:

Working as an Assistant Professor, SRM Institute of Science and Technology, Delhi-NCR Campus, Modinagar, Ghaziabad, U.P., 2010 to till date).

# **Professional Memberships:**

- Life Fellow Member of Indian Council of Chemists (FICC, LF 1682), 2015
- ▶ Life Member of Indian Society for Technical Education (ISTE, LM 97474), 2014

Life Member of National Magnetic Resonance Society (NMRS), IISc Bangalore, India (Reg. No.- 913/93-94, Online S. No. 474), 2004