

RESUME

Dr. Nimisha Singh

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Objective:

Seeking a challenging position in a reputable multinational corporation that allows me to leverage my skills and abilities while providing opportunities for professional growth. I aim to be resourceful, innovative, and flexible in contributing to the company's success. **Personal**

Skills:

- Comprehensive problem-solving abilities
- Leadership qualities
- Excellent communication skills

Professional

Experience:

Presently working as Associate Dean of School of Skill Development, Baba Farid Group of Institutions, Bathinda, till time

- Managed certificate courses from initiation to certification, ensuring industry or MOOC certifications for students.
- Managed live projects, leading to outcomes like patents, publications, funding, and industry collaborations.
- Managed the Technical team for website updates and maintenance.
- Contributed for Establishment of industry collaborations and MoUs to enhance student opportunities.
- Arranged number of Technical External workshops and internships for skill and knowledge enhancement.
- Coordinated compliance with NAAC Criteria C1

Head of Department, Baba Farid College of Engineering and Technology, BFGI Bathinda, from 24.08.2020-09.08.2022.

- Managed Academic activities and faculty recruitment in college.
- Counseled students and managed departmental admission seats.
- Actively participated in conducting examinations and served as a Head Examiner.
- Conducted over 20 webinars and served as the president of the Women Development Cell.
- Made an effective contribution to teaching and learning in the chemistry field and also encouraged teamwork as well as flexibility for pedagogical and commercial success.
- Conducted lectures, tutorials, workshops, practical classes, demonstrations, and other appropriate learning activities.
- Eminently supported progressive research endeavours among both students and faculty within the institute.

Assistant Professor, Baba Farid College of Engineering and Technology, Bathinda from 15.01.2019 to 23.08.2020.

- Taught Engineering Chemistry undergraduate students the Baba Farid college of Engineering and Technology (BFGI) Bathinda, Punjab

HOD Applied Sciences, E-Max Group of Institutions, Ambala, from 01.08.2012-31.08.2015

- Successfully managed the Applied Sciences department, overseeing academic and faculty development.

Junior Research Fellow, Ministry of Environment & Forests project, at

G.B.Pant.University of Agriculture and Technology, from 17.08.2007 to 15th Aug, 2010.

- Conducted research in the project "Pesticide Degradation using Cultural and Biological Tools to Minimize Groundwater Pollution."

Junior Research Fellow, Uttarakhand State Council of Science & Technology project, at G.B.Pant.University of Agriculture and Technology, from 17th Aug 2010 to 17th Feb 2011.

- Conducted research in the project "Monitoring of Pesticide Residues in Samples of Some Vegetables and Biological Degradation in Soil Applied Pesticides" **Educational**

Qualifications:

- Ph.D. in Applied Chemistry - M.J.P. Rohilkhand University, Bareilly (2012)
- Thesis: "Studies on Degradation of Organophosphate Insecticide (Chlorpyrifos) to Prevent Leaching in Groundwater."
- M.Sc. in Applied Chemistry - M.J.P. Rohilkhand University, Bareilly (2006)
- B.Sc. - Bareilly College, Bareilly (2004)
- XIIth - C.B.S.E. Board (2001)
- Xth - C.B.S.E. Board (1999)

Research Publications:

- Arora, R.K., Singh, N., Singh, R.P. (2013). Characterization of an entomophagous medicinal fungus *Cordyceps sinensis* (Berk.) Sacc. Of Uttarakhand, India. *The Bioscan*. 8(1):195-2000.
- Arora, R.K., Arora, I. and Singh, N. (2013). Effect of Soil solarization integrated with organic amendments and bioagents on population dynamics of soil microbial populations. *The Bioscan*. 8(4):1177-118.
- Arora, I., Singh, N., Yadav, K., Pahal, P. and Kumar, A. (2013). Vegetable Grafting: Surgical tool for yield enhancement and nematode resistance under vegetable production systems. *The Pharma Innovation*. 12(1):2448-2453.
- Taneja, T. and Singh, N. (2013). Physico-chemical analysis on assessment of ground water in Malwa Region, Punjab. *The Pharma Innovation*. 12(1):2549-2554.
- Singh, N., Srivastava, A., Srivastava, P.C and Srivastava, N. (2012). Effect of farm yard manure and its conjoint use with microbial consortium on chlorpyrifos residues in soil, plant and percolation water in cropped lysimeter. *J. Residue Sci & Technol*. 9(1):41-45.
- Chauhan, S.S., Negi, S., Singh, N., Bhatia, G and Srivastava, A. (2012). Monitoring of pesticides residues in farm gate vegetables of Uttarakhand, India. *J. Agricultural Research*. 1(7):250-256.
- Srivastava, N., Singh, N. and Mehrotra, A. (2012). Clove and Clove oil (Eugenol)- Medicinal Values. *Indian Farmer's Digest*. 45(1), 22-25.
- Singh, N., Srivastava, A., Srivastava, P.C and Srivastava, N. (2011). Adsorption Desorption of Chlorpyrifos Insecticide in mollisols. *Fresenius. Environ. Bulletin*. 20(4):847-852.

- Srivastava, N., Kumar, A., Mehrotra, A. and Singh, N. (2011). Nature's gift – The Neem Tree, Indian Farmer's Digest. pg. 9-13.
- Singh, N., Srivastava, A., Srivastava, P.C and Srivastava, N. (2010). Jatropha Curcus – The Biodiesel crop, Indian Farmer's Digest. pg. 26-29.
- Singh, N., Srivastava, A., Srivastava, P.C and Srivastava, N. (2010). Efficacy of fourmicrobial cultures in dissipation of Chlorpyriphos in mollisols. Asian J. Exp. Chem.5(1):36-39.
- Singh, N., Srivastava, A., Srivastava, P.C and Srivastava, N. (2010). Role of soilamendmentsinDissipationofChlorpyriphosinMollisols.PesticideResearchJ.22(2):13914 2.
- Singh, N., Srivastava, A., Srivastava, P. C. and Srivastava, N. (2010). Potentials of amendments in reducing leaching of Chlorpyriphos in ground water. Published as a book chapter by International water association in Issues and solutions to diffusepollution,DipconCanada.
- Arora, Rupesh Kumar, Nimisha Singh, and R. P. Singh. "Characterization of an entomophagous medicinal fungus Cordyceps sinensis (Berk.) Sacc. of Uttarakhand, India." *The Bioscan* 8.1 (2013): 195-200.
- RUPESH KUMAR Arora, NIMISHA Singh, INDU Arora, "Effect of soil–solarization integrated with organic amendments and bio agents on population dynamics of soil microbial populations", *The Bioscan*, 8(4), 1177-1182
- N. Taneja, T. and Singh, "Physico-chemical analysis on assessment of ground water in Malwa Region, Punjab.", *The Pharma Innovation*, 12(1), 2549-2554.
- N.Singh Taneja,T, "Physio-Chemical Analysis on Assesment of Ground water in Malwa region", *The Pharma Innovation Journal*. 12(1), 2023, 2549-2554.
- Rajni Verma, Nimisha Singh, "Groundwater Contamination in Bathinda, India: A Case Study in the Malwa Region", *Latest Trends in Engineering and Technology*, 550-554, CRC Press, 2024
- Rajni Verma, Tanu Taneja, Nimisha Singh, Nidhi Tanwar, "Chemoinformatics and big data analytics: Revolutionizing chemical research-A review", *AIP Conference Proceedings*, 3121(1), 2024, 040032.
- Phuke Rakesh Rao Ramandeeep Sandhu, Harpreet Kaur Channi, Deepika Ghai, Nimisha Singh, "Generative AI Techniques and Computational Intelligence Functioning on Text-to-Image/Visual Content Generation", *Exploring Generative AI with Computational Intelligence* 2025.
- Channi, H.K., Sandhu, R., Singh, N., Ghai, D., Kumar, P., Cheema, G.S. (2025). Governance Frameworks for Smart Systems. In: Mahajan, S., Rocha, Á., Pandit, A.K., Chawla, P. (eds) *Smart Systems: Engineering and Managing Information for Future Success*. Information Systems Engineering and Management, vol 22. Springer, Cham.
- Chouhan, S., Sandhu, R., Channi, H.K., Ghai, D., Singh, G., Singh, N. (2025). Revolutionizing Mental Healthcare with Generative Deep Learning Techniques for Enhanced Diagnosis and Treatment. In: Kumar, A., Ortiz-Rodriguez, F., De Vasconcelos, J.B., Kumar Dutta, P., Saini, H.K., Rathore, P.S. (eds) *Adversarial Deep Generative Techniques for Early Diagnosis of Neurological Conditions and Mental Health Practises*. Information Systems Engineering and Management, vol 46. Springer, Cham.
- Kumar, L., Raj, A., Singh, N., Sandhu, R., Gangwar, G., Ghai, D. (2025). Future Directions in Computational Intelligence: Anticipating the Next Wave. In: Mahajan, S., de Vasconcelos, J.B. (eds) *Next-Generation Computational Intelligence: Trends and Technologies*. Information Systems Engineering and Management, vol 60. Springer, Cham.
- Nimisha Singh. pH as a Key Indicator of Water Quality: A Case Study on Natural and Industrial Water Sources in Malwa Region of Punjab, India. *Asian Journal of Physical and Chemical Sciences*, 2026, 14 (1), pp.48-57.

- Chouhan, S., Sandhu, R., Singh, N., Singh, G., Banerjee, S. (2026). Innovative Applications of Fuzzy Logic for Adaptive and Intelligent Game Manufacturing. In: Chandra Giri, B., Jana, S., Sarkar, A., Mallik, B.B., Kar, R. (eds) Fuzzy Logic in Real Life Scenarios. Information Systems Engineering and Management, vol 73. Springer, Cham.
- Nimisha Singh, Supriya Sethi. The Molecular Science of Fragrances: Chemistry, Synthesis, and New Trends. South Asian Research Journal of Natural Products, 2026, 9 (1), pp.119-130.
- Singh, Nimisha. 2026. "The Influence of Chemical Redox Waste and Industrial Waste on River and Groundwater Quality in Bathinda, Punjab, India". *Asian Journal of Physical and Chemical Sciences* 14 (1):170-82.
- Channi, H.K., Sandhu, R., Ghai, D. and Singh, N. (2026). Nanotechnology for Energy Applications. In *Micro and Nano Semiconductor Devices for Digital, Analog and Sensor Design* (eds S.L. Tripathi, V. Gupta, S. Saxena, S. Upadhyay and S. Ghosh).
- Singh, G., Singh, N., Kumar, I., Sandhu, R., Ghai, D. (2026). Recent Technologies for the Diagnosis and Monitoring of Depressive Disorders. In: Al-Sartawi, A.M.A.M., Aydiner, A.S. (eds) *Generative Artificial Intelligence-Driven Innovation: Strategies and Ethical Frameworks for Responsible AI. Studies in Computational Intelligence*, vol 1248. Springer
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Patents -

S. No.	Patent Application No.	Patent Application Title	Date of filing	Status
1	202511070275	Adaptive Surgical Denture System with Real Time Occlusion feedback and Interoperative Fabrication	23 July 2025	Published
2	202511044495	In Eco-Strengthened Resin Composite and A Method for Preparing Thereof	08 May 2025	Published
3	202511007560	Autonomous Real -Time Ammonia Monitoring and Control System for Aquatic Tank Health and Method Thereof	January 2025	Granted
4	202411003010	Smart Entrance System and A Method Thereof	January 2025	Published
5	202411007529	Programming Exam Cheating Guard System and A Method Thereof	04 February 2024	Published
6	202311088396	Smart Dung Cake Making Device and Method Thereof	23 December 2023	Published
7	202311017922	Automated washing and disinfecting apparatus	1 March 2023	Published
8	202211021743	Method of pesticide residues/chemicals cleaning from fruits and vegetables	1 April 2022	Published

9	202111040325	Adjustable Drain Cleaner Machine	06 Sept. 2021	Published
10	202111025118	System Of Connecting Two Lanes With Router And Methods Thereof	07 June 2021	Published
11	2021103121	System of ROI & K-Means Clustering Based Hybrid Technique For Detection Of Yellow Spot Disease in Crops	09 June 2021	Published

Seminar/Worshops/Conferences-

- Contributed a paper “ entitled “Ground water contamination in Bathinda,India: A case study in the Malwa Region. In the AICTE Sponsored “2nd International Conference on Latest trends in Engineering and Technology 2023(ICLTET 2023) dated July 13-14,2023 organized by Department of Electronics & communication Engineering,CEC, Mohali
- Participating in 5 days faculty development program on “Innovations in water treatment & Sustainable Infrastructure” organized by Chandigarh Engineering College, Jhanjer , Mohali from May 29 to June 2,2023.
- Participated as a delegate and presented a research paper entitled “Monitoring of pesticides residues in some vegetable samples of Uttarakhand region in International conference on Environment and Society (ICES 2022) dated Dec 23 & 24,2022 organised and hosted by Jiwaii University, Gwalior(M.P),India
- Participated in Six Days FDP on “Waste Management and Environment Protection for Sustainable Development” organized by Department of Civil Engineering, Baba Farid College of EngineeringandTechnology,Bathindafrom10th-15thJanuary2022.
- Participated in “International Seminar Series on Nanotechnology for Environment and Sustainability” organized by Department of Medical Physics Centre for Interdisciplinary Research under D.Y.Patil Education Society, Kolhapur, Maharashtra from 12thto 13thJanuary2021.
- Participated in seven-day Workshop on “Digital Education Initiatives” organized Lucknow Intellectual Forum from 20.01.2021 to26.01.21.
- Participatedin5daysFDPon“OnlineTeachingLearningPedagogy&Effective mentoring” organized by Baba farid College, Bathinda from 1stto 5thFebruary2021.
- Participated in Six days online Short Term training Programme on “Climate Change &water Security” organized by department of Civil engineering, Giani Zail Singh Campus College of engineering and Technology, MRSPTU, Bathinda(Punjab)from 1st-6th Feb,2021.
- Participated in National Virtual Conference on “recent Advances in AnalyticalTechniques-2020 , organized by USER CDST Uttarakhand govton16-17thAug,2020.
- Participated in FDP on “Performing Experiments on virtual Labs” organized by Baba Farid College of Engineering and Technologyfrom10.Aug,2020to 14th.Aug,2020.
- Participated in Two days International E-Seminar Chemistry, Biology and Covid19organizedbyDepartmentof Chemistry,University of Lucknow on 25-26th June,2020.
- Participated in Three Days International Webinar Series on “Modern Analytical Methods in Chemistry” organized by Department of Chemistry, G.B.Pant University of Agriculture &Technology,Pantnagar, Uttarakhand from 15th to17thJune2020.
- Participated in one day webinar on “Research in Digital Age- Problem and Opportunities organized byBVICAM, New Delhi on 12thJune2020.

- Participated in one day webinar on “Word Environment Day Celebration” organized by YCOE, Guru Kashi Campus on 5th June 2020.
- Participated and presented the paper in National Seminar dated Nov 08, 2011 entitled “ Potential of conjoint use of Farmyard manure and microbial consortium applications on chlorpyrifos residues in soil, plant and percolation water in cropped lysimeters organized by GPBUA&T., Pantnagar, Uttarakhand.
- Participated and presented the paper in National Conference on Advancements and futuristic trends in Material Science (AFTMS 2011) entitled “ Dissipation studies of Chlorpyrifos with Different soil amendments in Mollic soils organized by MPJRU, Bareilly, UP.
- Participated and presented the paper entitled “Chemical Pesticides in ground water- Hazard to Environment” in the National Seminar dated Nov. 20-21, 2010 on Impact of Environmental Changes On Human Life at Sadanlal Sanwaldas Khanna Girls Degree College, Allahabad, pg. 62-63.
- Participated and presented a paper entitled “Contemporary Research in Material Science and Chemical Biology” dated Jan 31-Feb 02, 2010 organized by the Department of Chemistry in association with the Allahabad Chapters of the Indian Science Congress Association and Indian Chemical Society.
- Participated in Regional seminar on “Intellectual Property and Innovation Management in Knowledge Era” organized by UCOST, GBPUAT and NRDC on 16th March 2010.
- Actively participated in 5th Uttarakhand State Science & Technology Congress 2010, Dehradun dated Nov 10-12, 2010 presented the paper entitled Monitoring of Pesticides residues in some vegetable samples of Uttarakhand Region.
- Actively participated in 4th Uttarakhand State Science & Technology Congress 2009, Dehradun dated Nov 10-12, 2009 at G.B.P.U.A&T., Pantnagar, Uttarakhand and presented the paper entitled “Adsorption-Desorption behaviour of chlorpyrifos in different soils.
- Attended the summer Training for 30 days (19.07.2006 to 19.08.2006) on analysis of drugs by spectroscopy and Chromatography (HPLC & GLC) in the Division of Pharmacology and Toxicology, IVRI (ICAR), Izatnagar, U.P.

Abstract published in Conferences:

- **Singh, N., Srivastava N., Srivastava, A and Srivastava, P.C. (2010).** Kinetics of chlorpyrifos interaction mechanisms in Mollisols, paper No. 0P-9, presented at National conference on Simulation and characterization of advance materials at the Dept of Applied Physics Institute of Engineering & Technology, MJP Rohilkhand University Bareilly (Sicham 2010).
- **Singh, N., Srivastava N., Srivastava, A and Srivastava, P.C. (2010).** Efficacy of soil amendments in reducing the chlorpyrifos leaching through mollisols, presented in National Seminar on Contemporary Research in Material Sciences Chemical Biology, at the Department of Chemistry, University of Allahabad.
- Srivastava N., Kumar A., Mehrotra A and Singh, N., (2010). Friend of Environment – The Peepal Tree, presented in National Seminar on Impact of Environmental Changes On Human Life at Sadanlal Sanwaldas Khanna Girls Degree College, Allahabad, pg. 68-69.
- Srivastava N., Kumar A., Mehrotra A and Singh, N., (2010). Chemical Pesticides in ground water- Hazard to Environment, presented in National Seminar on Impact of

Environmental Changes On Human Life at SadanlalSanwaldas Khanna Girls Degree College, Allahabad ,pg.62-63.

- Singh, N., Srivastava, A., Srivastava, P.C and Srivastava N (2011). Dissipation Studies of Chlorpyrifos in mollisols, presented in National Conference in Advancement and Futuristic Trends in material Science at Department of Applied Physics at MJP Rohilkhand University, pg.45.
- Singh, N., Srivastava, A., Srivastava, P.C and Srivastava N (2011). Potential of conjoint use of Farmyard manure and microbial consortium applications on chlorpyrifos residues in soil, plant and percolation water in cropped lysimeters, pg.79.
- Channi, Harpreet Kaur, Ramandeep Sandhu, Nimisha Singh, Deepika Ghai, Pradeep Kumar, and Gagandeep Singh Cheema. "Governance Frameworks for Smart Systems." In *Smart Systems: Engineering and Managing Information for Future Success: Navigating the Landscape of Intelligent Technologies*, pp. 157-189. Cham: Springer Nature Switzerland, 2025.
- Verma, Rajni, Tanu Taneja, Nimisha Singh, and Nidhi Tanwar. "Chemoinformatics and big data analytics: Revolutionizing chemical research- A review." In AIP Conference Proceedings, vol. 3121, no. 1, p. 040032. AIP Publishing LLC, 2024.
- Verma, Rajni, and Nimisha Singh. "Groundwater Contamination in Bathinda, India: A Case Study in the Malwa Region." In Latest Trends in Engineering and Technology, pp. 550-554. CRC Press, 2024.
- Aryan Raj, Lalit kumar, Nimisha Singh, Ramandeep Sandhu, Deepika Ghai. "Natural Language Processing (NLP) and Understanding (NLU): A Cutting-Edge Area of AI Revolutionizing Various Industries." 2025. (**Book Chapter, Accepted**)
- Aryan Raj, Lalit kumar, Nimisha Singh, Ramandeep Sandhu, Deepika Ghai. "The Future of Computational Intelligence: Anticipating the Next Wave." 2025. (**Book Chapter, Accepted**)

Research Projects

- PI, Cyber Physical systems Lab by ihub-AWaDH IIT Ropar, 1 Lakh
- Co-PI, EEG-Integrated AI-Enabled Mobile Platform for Psychiatrist-Assisted Diagnosis of Depressive Disorders, 16.16 Lakh, AICTE RPS Scheme.

Awards/Honors/Appreciations:

- **Recognition at IIT Ropar-TIF SAMRIDHI Conclave 4.0**, Department of Science and Technology, 24th February 2025: The proposal titled "CPS Training, Skilling and

Enabling Startups Uttarakhand THRIVE Summit One-week Hands-on Hybrid Workshop" was submitted by Dr. Nimisha Singh (PI) and Dr. Amandeep Singh (Co-PI) from Baba Farid College of Engineering and Technology, Bathinda.

- **Research Award**, Baba Farid Group of Institutions, Bathinda, Punjab, 11th April 2024: Awarded for outstanding performance in Research and Innovation.
- **Award for Best Department in Research**, Baba Farid Group of Institutions, Bathinda, Punjab, 11th April 2024: Received award as Dean of Skill Development; this department was recognized for exceptional excellence in research.
- **Award for Outstanding Contribution in Academic Collaboration**, Baba Farid Group of Institutions, Bathinda, Punjab, 11th April 2024: Received award as Dean of Skill Development; this department successfully organized and executed a funded activity in collaboration with industry and academic institutions.
- **Award of Honor for Education Enhancement**, Baba Farid Group of Institutions, Bathinda, Punjab, 11th April 2024: Awarded for outstanding efforts and dedication in the NAAC Criterion 1 (Curricular Aspects) accreditation process.
- **Best Teacher Award**, Baba Farid Group of Institutions, Bathinda, Punjab, 5th September 2022: Received award for excellent services in the field of education.
- **Award for Extraordinary Contribution towards BFGI**, Baba Farid Group of Institutions, Bathinda, Punjab, 2021: Recognized for outstanding efforts in skill enhancement at the college.
- **Best Oral Presentation Award**, G.B. Pant University of Agriculture and Technology, Pantnagar, Uttarakhand, 8th November 2011: Received best oral presentation for the paper titled "Potential of Conjoint Use of Farmyard Manure and Microbial Consortium Applications on Chlorpyrifos Residues in Soil, Plant, and Percolation Water in Cropped Lysimeters" at the National Seminar on Pesticides, Food Safety, and Environment.

PERSONAL

DETAILS

Husband's name:	r. Rupesh
Occupation	:(Prof,PAU , Punjab)
Date of Birth	i th Dec. 1983
Marital Status	Married
Nationality	ndian
Languages Known	indi & English
Permanent Address	1/2 PAU Regional Station Dabwali road, thinda, Punjab.

REFERENCES:

- Dr Anjana Srivastava Professor Dept. of Chemistry, G.B.Pant.University of Agri.
& Tech.Pantnagar
Mob. No. 7579096082
- Dr. P.C.Srivastava
(Retd) Professor Dept. of Soil Science, G.B.Pant.University of Agri. & Tech.Pantnagar
Mob. No. 9411159640

DECLARATION

I hereby declare that the above written particulars are true to the best of my knowledge and belief.



Dr.Nimisha Singh