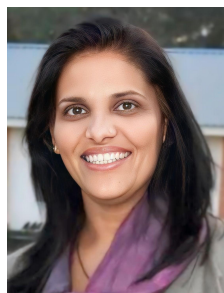




Shivaji College Faculty Details Proforma

Title	Dr.	First Name	Sunita	Last Name	Singh	Photograph
Designation		Associate Professor				
Address		Department of Biochemistry Shivaji College, University of Delhi Raja Garden, New Delhi, Delhi-110027				
Office Phone No.		011-25116644				
Residence		---				
Mobile		9811750581				
Email		sunitasingh@shivaji.du.ac.in				
Web-Page		--				
Educational Qualifications		M. Sc. Biochem. & Ph.D (Biomedical Biochemistry)				
Degree		University/Institute				Year
Ph.D.		Department of Biochemistry, Sarojini Naidu Medical College (SNMC), Dr. B.R. Ambedkar University, Agra				1993
PG		Department of Biochemistry University of Allahabad				1989
UG		Ewing Christian College (ECC) University of Allahabad				1986
Any Other Qualification		PGDB (Post Graduate Diploma in Bioinformatics) Directorate of Open & Distance Learning (DODL) Jamia Hamdard University, New Delhi				2010
Career Profile						
- Associate Professor, Department of Biochemistry, Shivaji College, University of Delhi, Raja Garden, New Delhi (Dec. 22, 2022 - Till Date) - Assistant Professor, Department of Biochemistry, Shivaji College, University of Delhi, Raja Garden, New Delhi (Dec. 22, 2014- Dec.21, 2022) - Assistant Professor (Adhoc), Department of Biochemistry, Shivaji College, University of Delhi, Raja						

Garden, New Delhi (Sept.03, 2007 - Dec. 19, 2014) 4. Assistant Professor (Adhoc), Department of Biochemistry, Deshbandhu College, University of Delhi Kalkaji, New Delhi (Nov. 21, 2005 - Apr. 30, 2007) 5. Young Scientist (DST No.–SR/FTP/LS-A-64/2001), Chemistry Department, Indian Institute of Technology Delhi (IITD), Hauz Khas, New Delhi (Dec. 1, 2002- Nov. 18, 2005) 6. Senior Research Associateship (Pool Officer- 7446 A), Council of Scientific and Industrial Research (CSIR), Biochemistry Research Lab., Chemistry Department, Indian Institute of Technology Delhi (IITD), Hauz Khas, New Delhi (May 10, 1999 - May 09, 2002)
Administrative Assignments Teacher-in-charge, Department of Biochemistry, Shivaji College, University of Delhi, Raja Garden, New Delhi (July, 2017-June, 2018; July, 2023-June, 2024) Deputy Superintendent, Examination Centre, Shivaji College, University of Delhi, Raja Garden, New Delhi (2023-24; 2024-25; Dec. 2025) Member, Board of Studies-Doctoral Program, Institute of Advanced Research (IAR, University for Innovation), Gandhinagar, Gujarat, India (2023-24) Convener, Vidya Vistar Committee (V2S), Staff Council Committee, Shivaji College, University of Delhi, Raja Garden, New Delhi (2022-23; 2023- 2024) Convener, College Ethics Committee, Staff Council Committee, Shivaji College, University of Delhi, Raja Garden, New Delhi (2022-23; 2023-2024) Convener, Women's Development Cell (WDC), Shivaji College, University of Delhi, Raja Garden, New Delhi (2019-20; 2020-21) Convener, Complaints Committee Against Sexual Harassment of Women at Workplace, Shivaji College, University of Delhi, Raja Garden, New Delhi (2019-20; 2020-21)
Areas of Interest/Specialisation Nanobiocatalysts and their applications Production, isolation and characterization of proteins/ enzymes Bioremediation Bioinformatics Nanoparticle based therapy
Subjects Taught <u>At undergraduate level (B. Sc. (Hons.) Biochemistry</u> DSC: Biochemical Techniques DSC:Enzymes DSC: Membrane Biology DSC: Gene organization Replication and Repair-Practical

DSE: *In Silico* Tools in Proteomics and Genomics

SEC: Basics of Forensic Sciences

DSE: Research Methodology

DSE: Advanced Methodology

DSC: Advanced Techniques in Biochemical Research

Innovation Project/Research Projects (Major Grants/Research Collaboration)

PI- ICMR Sponsored Project (IRIS ID-2023-19848) (2024-27)

“Evaluation of Self Amplifying mRNA Mediated Enzyme Replacement Therapy for the Treatment of Phenylketonuria”

PI-Intramural Project (2022-23), Shivaji College, University of Delhi

“Interplay of Genetic and Lifestyle Risk Factors in Cardiovascular Diseases” (MRP/2022/0004)

PI-University Innovation Project SHC 303(2015-16)

“Assessing Microbial Diversity of Yamuna Water: A Step Towards Environmental Restoration (Bioinformatics Applied in Bioremediation)”

Co-PI-University Innovation Project SHC 203 (2013-14)

“Biochemical Assessment of Toxic Heavy Metals In Bacterial Strain Growing In The Polluted Water: A Step Towards Bioremediation”

PI-Young Scientist Award of Department of Science and Technology (DST), Under SERC FAST Track Scheme for Young Scientists 2001-02 (2002-05)

“Applications of Free Bioligands in Two Phase Separations of Enzymes and Cells”

PI- Senior Research Associate (Pool Officer) of Council of Scientific and Industrial Research (CSIR) (Pool no. 7446 A) (199-2002)

“Magnetite Separation & Purification of Amylase”

Publications Profile (Research Papers/Books)

Papers Published in International Journals

1. **Singh S.**, Cookey G.A and Singh M. (2025) Friction Resonating Energy Transfer for Molecular Economy, Journal of Molecular liquids, Vol. 427, 1271-76, ISSN Print / Electronic:0167-7322 / 1873-3166.
2. Chaudhary I.J., Chauhan R., Kale S.S., Gosavi S., Rathore D., Dwivedi V., **Singh S.** and Yadav V.K. (2025) Groundwater Nitrate Contamination and its Effect on Human Health: A Review, Water Conservation Science and Engineering, Vol. 10, 33. 2.
3. **Singh S.**, Yadav U., Kharbanda S., Bhardwaj A., Gupta S., Thakur V., Aggarwal Sh., Aggarwal Sp., Simron S., Kumari S., Anand S., Anusha and Thakur J. (2025) A Comparative Study of the Health Status of Young Indian Adults a Positive Impact of Traditional Indian Dietary Practices, South Eastern European Journal of Public Health, Vol XXVI (S2), 96-107.
4. Shahin R., Yadav R.K., Verma R.K., **Singh S.**, Gupta N.K., Singh S., Kim J. and Baeg J.O. (2025) Novel boron-fluorine functionalized SGCN as multifunctional heterogeneous synergistic photocatalyst for the synthesis of 3,5-diphenyl 1,2,4-thiadiazole derivatives and cofactor NADH regeneration engineering, Journal of Molecular Structure, 1323, 140728.
5. Mishra A., Yadav R.K., Mishra S., Shahin R., Singh S., Gupta A.K., Singhal R., Gupta N.K., Baeg J.O., El-Hiti G.A. Yadav R.K. and **Singh S.** (2024) Sun-powered synthesis: harnessing multiwall carbon

- nanotube-EB photocatalytic magic in a unified photocatalytic-biocatalytic system for solar- driven L-glutamate production from α -ketoglutarate, Carbon Letters, 35, 257-265.
6. Lal R., **Singh S.** and Pandey M. (2024) Antiproliferative potential of Ficus auriculata fruit extract on A549 cell lines: Insights from gene expression analysis, Journal of Pharmacognosy and Phytochemistry, Vol. 13 (3), 279-90.
 7. Malik P., **Singh S.** and Singh M. (2024) Water balancing actions of sodium and potassium chlorides for curcumin antioxidant activities in oil-water nanoformulations, Journal of Molecular Liquids, Vol. 398, 124266.
 8. Chandra S.P., Upadhyay R., **Singh S.**, and Singh M. (2022) Synthesis, characterization, and functionalization of superadhesive melamine formaldehyde polyvinylpyrrolidone resins doped with metallic and graphene oxide nanoparticles for better industrial applications, Journal of Applied Polymer Sciences 139, 1-32 (Online ISSN: 1097-4628).
 9. Singh M., Srivastava V. K., **Singh S.**, and Ramakrishna C. (2022) Survismetry for Survistronics Enlarging Potential of Surfaces for Industrial Applications, Trends in Textile Engineering & Fashion Technology, 7 (4), 880-882 (DOI: 10.31031/TTEFT. 2022.07.000668).
 10. Malik P., Inwati G. I., Mukherjee T. K., **Singh S.**, and Singh M. (2019) Green silver nanoparticles and tween 20 modulated pro-oxidant to antioxidant curcumin transformation in aqueous CTAB stabilized peanut oil emulsion, Journal of Molecular Liquids, 291, 111252 (ISSN 0167-7322).
 11. Chandra A., Malik P., **Singh S.**, Roy A., Sahoo N.. and Singh M. (2022), Sustainable research methodology for potassium nitrate recovery from seawater. Chemical Engineering and Processing – Process Intensification, 174, 108870.
 12. Singh M., **Singh S.**, Inamuddin C. D. and Abdullah M. (2017) A IFT and friccohesity study of formulation, wetting, dewetting of liquid systems using oscosurvismeter, Journal of Molecular Liquids, Vol. 244, 7–18.
 13. Singh M., **Singh S.**, and Srivastava V. K. (2016) Physicochemical Synergetics of Liquid Mixtures of Functional Molecules: Osco-survismeter and Survismeter, International Conference on Informatics, Management Engineering and Industrial Application (IMEIA 2016), 330-338, ISBN: 978-1-60595-345-8.
 14. Malik D., **Singh S.**, Kaur A., Thakur J., Nijhawan S. (2014) Oxidative Burst: Biochemical implications of metal toxicity, Journal of Biotechnology and Crop Sciences, Vol. 6(1) 25-40.
 15. Malik D., **Singh S.**, Singh R. K., Kaur A., Thakur J., Nijhawan S. (2014) Heavy Metal Pollution in Yamuna River: An Introspection, International Journal of Current Microbiology and Applied Science Vol3(10): 856-863.
 16. **Singh S.**, Malik D., Thakur J., Kaur A., Singh R.K. and Nijhawan S. (2014) A Comparative Analysis of the Physico-chemical Properties and Heavy Metal Pollution In Three Major Rivers Across India, International Journal of Science and Research Vol.3(8): 1936-1941.
 17. Malik D., **Singh S.**, Thakur J., Singh R.K., Kapur A., Nijhawan S. (2014) Microbial Fuel Cell: Harnessing Bioenergy from Yamuna Water, International Journal of Science and Research Vol.3(6): 1076-1081.
 18. Malik D., **Singh S.**, Thakur J., Singh R.K. Kapur A., Kaur A., Nijhawan S. and Kumar A. (2014) Nanocomposite Electrode Microbial Fuel Cell: A Promising Technology for Enhanced Power Generation from Yamuna Water, International Journal of Science and Research Vol.3(7): 641-646.
 19. Mondal K., Jain S., **Teotia S.** and Gupta M.N. (2006) Emerging options in bioseparations, Biotechnology Annual Reviews, Vol. 12, 1-30. 978-0-444-52724-0.
 20. **Teotia S.**, Mondal K. and Gupta M.N. (2006) Integration of affinity precipitation with partitioning

methods for bioseparation of chitin binding lectins, Food & Bioproducts Processing, Vol.84(C1), 37-43.

21. Jain S., **Teotia S.** and Gupta M.N. (2004) Purification of green fluorescent protein overexpressed by a mutant recombinant *E.coli*, Protein Expression and Purification, Vol. 36, 76-81.
22. **Teotia S.** and Gupta M.N. (2004) Chitosan as a macroaffinity ligand: Purification of chitinases by affinity precipitation and aqueous two phase, Journal of Chromatography A, Vol. 1052, 85-91.
23. Roy I., Jain S., **Teotia S.** and Gupta M.N. (2004) Evaluation of microbeads of calcium alginate as a fluidized bed medium for affinity chromatography of *A. niger* pectinase, Biotechnology Progress, Vol. 20, 1490-1495.
24. **Teotia S.** and Gupta M.N. (2004) Purification of phospholipase D by two-phase affinity extraction, Journal of Chromatography A, Vol. 1025, 297-301.
25. Sharma S., **Teotia S.** and Gupta M.N. (2003) Bioconversion in an aqueous two phase system using a smart biocatalyst: Casein hydrolysis by alpha chymotrypsin, Enzyme and Microbial Technology, Vol. 32(2), 337-339.
26. **Teotia S.**, Sharma S. and Gupta M.N. (2003) Casein hydrolysis in PEG-salt two phase system by Eudragit-chymotrypsin bioconjugate, Biotechnology Letters, Vol. 25, 637-639.
27. **Teotia S.** and Gupta M.N. (2002) Magnetite-alginate beads for purification of some starch degrading enzymes, Molecular Biotechnology, Vol. 20(3), 231-237.
28. **Teotia S.**, Lata, R., Khare S.K. and Gupta M.N. (2001) One step purification of glucoamylase by affinity precipitation with alginate, Journal of Molecular Recognition, Vol. 14(5), 295-299.
29. **Teotia S.** and Gupta M.N. (2001) Purification of amylase using magnetic alginate beads, Applied Biochemistry and Biotechnology, Vol. 90(3), 211-220.
30. **Teotia S.**, Khare S.K. and Gupta M.N. (2001) An efficient purification process for sweet potato amylase by affinity precipitation with alginate, Enzyme and Microbial Technology, Vol. 28(9-10), 792-795.
31. **Teotia S.** and Gupta M.N. (2001) Free polymeric bioligands in aqueous two phase affinity extractions of microbial xylanases and pullulanase, Protein Expression and Purification, Vol. 22, 484-488.
32. **Teotia S.** and Gupta M.N. (2001) Reversibly soluble macroaffinity ligand in aqueous two phase separation of enzymes, Journal of Chromatography A, Vol. 923(1-2), 275-280.

Papers Published in National Journals

1. Singh M., Prakash J. and **Teotia S.** (1998) Apparent molar volumes and viscosities and surface tensions measurements of NH₄Cl and glycine in glycerol water at 292.25 K, Ultra Science 10(2), 226-231.
2. Singh M., **Teotia S.** and Ram B. (1998) Viscosities of polyvinyl pyrrolidone in its aqueous solutions at 292.9 K, Asian Journal of Chemistry 10(3), 518-521.
3. **Teotia S.** and Singh M. (1997) Hypoglycemic effect of *Prunus amygdalus* seeds on albino rabbit, Indian Journal of Experimental Biology 35, 295-296.
4. **Teotia S.**, Singh M. and Pant M.C. (1997) Effect of *Prunus amygdalus* seeds on lipid profile, Indian Journal of Physiology and Pharmacology 41(4), 383-389.

Other Publications in National and International Journals

1. Wild Tigers: A battle for survival as a chapter in BOOK titled "Wild Life Management: Concept Analysis and Conservation" (2016) edited by Amita Saxena pp 197-202, Daya Publishing House, New Delhi, ISBN: 978-81-70305.

2. Malik D., Thakur P, **Singh S.**, Thakur J. and Nijhawan S. (2014) Defining Fashion: Examining Evolving Trends from a Socio-Historical Perspective, Journal of International Academic Research for Multidisciplinary, Vol.2 (11), 188-193.
3. Thakur J., Malik D., Nijhawan S. and **Singh S.** (2014) Situating Women in modern Science: The India Scenario, Journal of International Academic Research for Multidisciplinary, Vol.2(7), 52-59.
4. **Singh S.**, Thakur J., Malik D., Malik P. and Nijhawan S. (2014) Identity Negotiation: The Prospective of Indian Women, Journal of International Academic Research for Multidisciplinary, Vol. 2(7):439-447.

Published/Co-published the following chapter/book

1. **Singh S.** (2025) Chapter titled “UV-Vis Spectrophotometry and Spectrofluorimetry” in **Essential Laboratory Techniques and Biochemical Analysis**, edited by Malik D., Narayanasamy N., and Pratyusha V.A., CRC Press, Page no. 58-105, <https://doi.org/10.1201/9781003538691>, eBook ISBN9781003538691.
2. In the Editorial Board of Women’s Development Cell (WDC) Annual Book Publication, “**Vijeyini: Mahilaon ke badhte kadam**” (2026), Dilpreet Publishing House, New Delhi, ISBN No. 978 -93-91995-35-5.
3. Chapter titled “**नारी सशक्तिकरण की प्रेरणादायी यात्रा**” in (WDC) Annual Book Publication “**Vijeyini: Mahilaon ke badhte kadam**” (2026), Page no. 40-42, Dilpreet Publishing House, New Delhi, ISBN No. 978 -93-91995-35-5.
4. Chapter titled “**माताएं : समाज और संस्कृति की मजबूत आधारशिलाएं**” in WDC Annual Publication Motherhood Unbound (2025) pp 30-35, Media Design, Naraina, New Delhi-28.
5. Singh M. and **Singh S.** (2023) The Chemistry of Friction for Industrial Nanoformulations, ISBN-13:978-1-5275-9363-3 by Cambridge Scholars Publishing, UK.
6. **Singh S** and Bhatia A (2023) Chief Editor of Women Development Cell’s Coffee Table Book- **Manaswini** 2021, ISBN: 978-81-954354-2-5 published by Color Edge, New Delhi.
7. Managing Editor of **Sansmaran: A Decade of Reminiscence** published by Women Development Cell, Shivaji College, University of Delhi (Designed and Printed by Adhya Off set Printers, Noida, Uttar Pradesh), 2020, ISBN: 8190-1856-24.
8. Singh M. and **Singh S.** (2019) Survisometer: Fundamentals, Concepts and Applications ISBN-978 981-4774-70-3(Hardcover), ISBN 978-0-429-02761-1 (eBook), 1st Edition, Copyright © 2019 by Pan Stanford Publishing Pte. Ltd. Singapore.
9. Srivastava A. & **Singh S.** (2016) Paper on Public Welfare: The Forensic Psychological Tools Employed Towards a Crime free Society in Proceedings of International Conference on Public Health: Issues, challenges, opportunities, prevention, Awareness (Public Health: 2016) Vol 1; 161-169, Edited by Savita Roy, G.C. Mishra, S.Nanda & Anju Jain, Published by Krishi Sanskriti, New Delhi 110068, ISBN: 978-93-85822-10-0.
10. Singh M., Kale R.K. and **Singh S.** (2011) New Materials for Biosensor Construction In: Environmental Biosensors, Intech Open Access Publishers Chapter 6, pp147-170. Environmental Biosensors, Edited by Vernon Somerset, Cape Peninsula University of Technology (CPUT), South Africa (ISBN978-953-307-486-3).
11. Mondal K., Jain S., **Teotia S.** and Gupta M.N. (2006) Biotechnology Annual Reviews -Emerging options in bioseparations, Elsevier, Amsterdam, Netherlands Volume-12, pp 1-30 ISBN: 978-0-444-52724-0.

Conference/Seminar/Faculty Development Programme/Workshop

1. **ONE WEEK ONLINE TRAINING COURSE ON BIOETHICS & GOOD CLINICAL PRACTICES** (GCP- Online) organized by Multidisciplinary Research Unit, Pt. B.D. Sharma, PGIMS,

- Rohtak & MKSES, Lucknow from Oct 23 - 29, 2025.
2. **National Workshop on Systematic Reviews with Meta-Analysis and Regression Analysis** (Online) organized by Multidisciplinary Research Unit, Pt. B.D. Sharma, PGIMS, Rohtak & Science Tech Institute, Lucknow from April 21 - 27, 2025.
 3. Online AICTE Training And Learning (ATAL) Academy Faculty Development Program on “**Healthcare and Med Tech: Innovations, Challenges, and Future Directions**” organized by DELHI TECHNOLOGICAL UNIVERSITY (DTU) from Dec. 09 - 14, 2024.
 4. **NEP Orientation and Sensitisation Program** (Online) organized by UGC-MMTTC (also GAD-MMTTC), SGTB Khalsa College, University of Delhi from Aug. 06 -16, 2024.
 5. One week Virtual Workshop on “**Artificial Intelligence & Machine Learning in Bioinformatics** (Online) organized by Vasisht Genomics Research Lab and MSME, DSIR, Govt. Of India from June 17- 24, 2024.
 6. Online Refresher Course (Interdisciplinary- Science) on “**Skill Development in Forensic Science & Forensic Chemistry**” organized by UGC-Malaviya Mission Teacher Training Centre (UGC-MMTTC/GAD-MMTTC), SGTB Khalsa College, University of Delhi in collaboration with University of Delhi (Department of Anthropology, Skills Enhancement Committee) and Acharya Narendra Dev College, University of Delhi from April 6 - 30, 2024.
 7. **NEP Orientation & Sensitization Programme** (Online) organized by Mahatma Hansraj Malviya Mission Teacher Training Centre (MH-MMTTC), Hansraj College, University of Delhi from Nov. 03 - 17, 2023.
 8. Three days Hands on Workshop on **Molecular docking and Whole Genome Sequencing for Hunting Antimicrobial Resistance** organized by Aligarh Muslim University (AMU), Aligarh from Sept 07 - 11, 2023.
 9. Online FDP on **Spectroscopic Techniques & its Applications** organized by Department of Postgraduate studies and Research in Chemistry, St. Aloysius College, Mangalore- 575003 from July 24 - 28, 2023.
 10. One Week Workshop on **Biomedical Research** (Online) organized by Science Tech Institute, Lucknow from July 22 - July 28, 2023.
 11. One Week Online Faculty Development Programme on “**Advanced Technologies in Life Sciences**” organized by Centre for Innovation in Infectious Disease Research, Education and Training (CIIDRET), University of Delhi South Campus & Delhi School of Skill Enhancement and Entrepreneurship (DSSEED), University of Delhi in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi from Feb. 6 - 11, 2023.
 12. Online ONE WEEK FACULTY DEVELOPMENT PROGRAM on “**Basic IT tools, Advanced Spreadsheet Tools and Statistical Software Package with SPSS**” organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMNMTT) of Ministry of Education from Oct 27 - Nov. 03, 2022.
 13. Course Workshop on “**Ayurveda and Nutrition**” organized by Mahatma Hansraj Faculty Development Centre Hansraj College, University of Delhi and Value Addition Courses Committee (University of Delhi) in collaboration with Mahatma Hansraj Faculty Development Centre Hansraj College, University of Delhi on Oct. 20, 2022.
 14. Online Faculty Development Programme on “**Computational Genomics and Proteomics**” organized by Electronics and ICT Academy at PDPM IITDM Jabalpur in association with Jaypee University of Information Technology, Solan H.P under the "Scheme of Financial Assistance for Setting up of Electronics and ICT Academies" of the Ministry of Electronics and Information Technology (MeitY), Govt. of India from Aug. 28 - Sept. 10, 2022.

15. One Week (Online) interdisciplinary Faculty Development Programme on "**Implementation of National Education Policy 2020 using Innovative Teaching Methods**" organized by Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi from May 30 - June 04, 2022.
16. Two Week Faculty Development Programme (Online) on "**Pedagogy and Assessment in Higher Education: NEP 2020**" organized by Department of Education, Central University of Punjab Bhatinda from Jan. 5 - 18, 2022.
17. Short Term Online Course on **Implementation of National Education Policy (NEP) 2020** organized by Centre for Professional Development in Higher Education (CPDHE) UGC-Human, Resource Development Centre, University of Delhi from Oct. 20 - 26, 2021.
18. Online Two weeks interdisciplinary Refresher Course on "**Cinema, Society and Education**" organized by Atma Ram Sanatan Dharma College (IQAC), University of Delhi and Teaching Learning Centre, Ramanujan College, University of Delhi from April 06 - 19, 2021.
19. Six-Day Online Faculty Development Programme on "**Teaching and Learning of NMR Spectroscopy for Structure Determination**" organized by Department of Chemistry and the Teaching Learning Centre, NIT Warangal in association with TEACHING LEARNING CENTRE (A Higher Education Teaching Learning Scheme Under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching) from Feb. 19 - 24, 2021
20. One Week Online Faculty Development Programme on "**Intellectual Property Rights**" organized by IQAC, Hansraj College in collaboration with Mahatma Hansraj Faculty Development Centre (MHRFDC), Hansraj College, University of Delhi from Feb. 10 - 17, 2021.
21. Faculty Development Program on One Week **Digital Pedagogy to Enhance Teaching and Learning Experience** organized by Guru Angad Dev Teaching Learning Centre, SGPT Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of Ministry of Education (MoE) and Maitreyi College, University of Delhi from Dec. 15 - 21, 2020.
22. Workshop on Research Methodology (RM-1) on the theme '**Research for Resurgence**' organized by Centre for Professional Development in Higher Education (CPDHE), UGC-Human Resource Development Centre, University of Delhi, Delhi from Sept. 10 - 16, 2020.
23. One week online faculty development programme on **ICT enhanced teaching learning & creating MOOC's** organized by Shivaji College, University of Delhi in Collaboration with Teaching Learning Centre and Research Development and Service Cell, Ramunajan College, University of Delhi from Aug. 18 - 25, 2020.
24. Short term course on **Gender Sensitization (Online)** organized by UGC-Human Resource Development, University of Hyderabad (UoH) from July 27 - Aug. 01, 2020.
25. FDP on **ICT Enhanced Teaching and Learning 2.0** (Online) organized by ICT & IQAC, Sri Venkateswara College, University of Delhi from July 25 - 29, 2020.
26. Day Online Staff Development Programme on **Soft Skills and Cloud Technologies** Organized by Department of Master of Computer Applications, MSRIT under AICTE, Margadarshan from June 29 - July 01, 2020.
27. 24th Refresher Course in **Life Sciences & Biotechnology** organized by UGC-Human Resource Development Centre, Jawaharlal Nehru University (JNU), New Delhi from Aug. 19 - 30, 2019.
28. Training course on **Recombinant proteins: Expression, Purification, Characterization** organized by Dept of Biochemistry, South Campus, University of Delhi in collaboration with Centre for Innovation in Infectious Disease Research, Education and Training (CIIDRET), University of Delhi South Campus from July 02 - 16, 2019.
29. One Week Course on **Research Methodology** organized by UGC-Human Resource Development

- Centre, Jamia Millia Islamia, New Delhi from Feb. 04 - 09, 2019.
30. One Week **Professional Development Programme for Senior Faculty** organized by UGC-Human Resource Development Centre, Jamia Millia Islamia, New Delhi from Dec. 24 - 31, 2018.
 31. Faculty Development Program-03 on **University Functioning and Blended Learning** organized by Guru Angad Dev Teaching Learning Centre, SGPT Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) from Dec. 08 - 20, 2018.
 32. STEM Teacher Training Workshop on **Research Based Pedagogical Tools** organized by DBT, Govt. Of India, Newton Bhabha Fund of the British Council, IISER Pune and IIT Gandhinagar from Dec. 10 - 13, 2017.
 33. Four Weeks **Orientation Course** organized by UGC-HRDC, JNU, New Delhi from Jul. 25 - Aug. 19, 2016.
 34. Three Weeks UGC Sponsored Refresher Course in **Contemporary Studies** organized by Human Resource Development Centre, CPDHE, University of Delhi from Jun. 07 - 27, 2016.
 35. NMR Workshop : **HANDS-ON NMR 500 MHz - Understanding & Application** organized by SCS, Central University of Gujarat, Gandhinagar (Gujarat) on Jan. 09, 2012.
 36. **Bioinformatics Workshop for Life Sciences Faculty** organized by Sri Venkateswara college, University of Delhi, Dhaula Kuan, New Delhi from July 27 - 30, 2011.
 37. Seminar cum Workshop: **Frontiers in Structural Bioinformatics** organized by Bio-Medical - Informatics Centre, Department of Biophysics, AIIMS, New Delhi from June 23-25, 2011.
 38. Workshop on Hands on Training on **Cell & Molecular Biology Tools and Techniques** organized by National Centre for Human Genome Studies & Research, Punjab University, Chandigarh from Mar. 21 - 26, 2011.
 39. Workshop on **NANO-HPLC: Theory and Practice** organized by Institute of Research & Development, Gujarat and Forensic Science University, Gandhinagar at Ahmedabad Management Association (AMA) on Jan 24, 2011.
 40. National Workshop on **Molecular Cytogenetics: Cancer (SOLID TISSUE) Cytogenetics by FISH** organized by Department of Reproductive Biology, All India Institute of Medical Sciences (AIIMS), New Delhi from Aug. 27 - 29, 2009.
 41. International Conference on **Green and Sustainable Chemistry** organized by National Institute of Chemistry, Singapore from Aug. 03 - 05, 2009.
 42. **6th Phase of Workshop on Aptitude, Achievement and Proficiency** organized by National Testing Service-India, Central Institute of Indian Language (CIIL), Mysore from Jul.-07 - 11, 2009.
 43. **Workshop on Bioinformatics** organized by Indian Environmental Society and supported by Department of Biotechnology, Govt. Of India at Indian National Science Academy, New Delhi from Jan. 04 - 05, 2009.
 44. **Short Course on Directed Self-Assembly of Colloids** organized by University of Delaware, Newark, Delaware, USA at John M. Clayton Conference Centre, Newark, DE on Jun. 28, 2007.
 45. National Workshop on **Soft Computing, Machine Learning and Bioinformatics Applications** organized by Department of Computer Science, JMI, ND, DBT, Govt. of India, Sun Microsystems & Wipro Infotech from Nov. 17 - 19, 2004.

Research Guidance (<i>Supervision of Doctoral Thesis/Dissertations</i>)
Ph.D Supervisor: Nimish Kumar Singh Topic of Thesis “Development and Evaluation of Lipid Nano-particles as Delivery Systems” Registered in 2025
Awards and Distinctions
Woman Scientists (SR/WOS-A/LS-181/2007; Research in Basic/Applied Sciences) Department of Science Technology (DST), Govt of India Project titled “Three Phase Partitioning for Selective Permeation of Microbial Cells”
Memberships
✧ Proteomic Society of India, Indian Association of Science Congress. ✧ Indian Association of Science Congress. ✧ Society for Biological Chemists (Indian Institute of Sciences, Bangalore, India). ✧ Association of Physiologists & Pharmacologists of India (Dept. of Physiology, AIIMS, ND).
Resource Person & Other Academic Activities
1. Served as Distinguished speaker and delivered lecture on “Sun-Powered Synthesis: Harnessing Multiwall Carbon Nanotube-EB Photocatalytic Magic in a Unified Photocatalytic-Biocatalytic System for Solar- Driven L-Glutamate Production from α-Ketoglutarate” in 6th Edition of the Advanced Chemistry World Congress (Adv. Chemistry), London, UK from March 27-28, 2025. 2. Served as Resource Person in National Training Summer Program RM 5.0, delivered talk on “Research Ethics, IPR, Biosafety and Anthropometric Measurements” organized by Department of Biochemistry, Shivaji College, University of Delhi on July 07 & 8, 2025. 3. Served as Resource Person in Online five days workshop on Research Methodology, delivered talk on “ Understanding Plagiarism” organized by Department of Biochemistry & IQAC, Institute of Home Economics, University of Delhi on June 16, 2026. 4. Served as Resource Person in “Nano and Fly Science: A Hands on Workshop for Curious Students” organized by Department of Biochemistry, Shivaji College, University of Delhi on April 15, 2025. 5. Oral Presentation (Science behind the Magic of Traditional Herbs and Spices) in International Conference on Indigenous Knowledge Systems and Sustainable Development, organized by Shaikshik Foundation in collaboration with NCPSL & Shivaji College, Univ. of Delhi at Vigyan Bhawan, New Delhi on March 9, 2025. 6. Oral Presentation (Medicinal Properties of Fenugreek seeds and Tulsi for Health and Wellness) in International Conference on Vikshit Bharat @2047: Strategies for an Inclusive and Sustainable Development in the Global Context organized by Department of Commerce, Shivaji College, Department-College Interface, Department of Commerce, University of Delhi, Indian Commerce Association, Delhi NCR Chapter and St. Joseph’s College of Commerce (Autonomous), Bengaluru on March 04, 2025. 7. Served as Resource Person (Practical Perspective on Research Ethics, IPR, Plagiarism, and Anthropometric Measurements) in National Training Summer Program RM 4.0 organized by Department of Biochemistry, Shivaji College, University of Delhi from June 21 -July 19, 2024. 8. Served as Resource Person (Plagiarism, Research Ethics and Anthropometric Measurements) in National Training Summer Program RM 3.0 organized by Department of Biochemistry, Shivaji College, University of Delhi from June 05-July 03, 2023.

9. Served as Resource Person (Experimentation with *Drosophila melanogaster*: A beginner's guide) organized by Department of Biochemistry under the Aegis of DBT Star College Scheme, Shivaji College, University of Delhi on Sept 29, 2022.
10. Served as Resource Person (Culturing, Maintenance and Experimentation with *Drosophila melanogaster*) in Summer Training Program organized by Department of Biochemistry under the Aegis of DBT Star College Scheme, Shivaji College, University of Delhi from June 20 - July 18, 2022.
11. Served as Resource Person (Introduction, Types and Applications of Chromatography) in Intra-College Laboratory Skill Training Programme for Assistants/ Attendants in Chemical & Life Sciences organized by Department of Biochemistry under the Aegis of DBT Star College Scheme, Shivaji College, University of Delhi from August 11-17, 2021.
12. Served as Resource Person (An Overview: Bioinformatics Introduction and Applications; Bioinformatics Tools for Protein Structure Prediction) in Outreach Programme: Online Hands on Training Workshop on Bioinformatics Tools for Understanding Protein Biology organized by Department of Biochemistry under the Aegis of DBT Star College Scheme, Shivaji College, University of Delhi from April 17, 2021.
13. Served as Resource Person (Protein Structure Visualization Tools; Predicting Transmembrane Protein Topology Using TMHMM Software) in Outreach Programme: Online Hands on Training Workshop Bioinformatics Tools for Understanding Protein Biology organized by Department of Biochemistry under the Aegis of DBT Star College Scheme, Shivaji College, University of Delhi from April 16, 2021.
14. Served as Resource Person (Estimation of Haemoglobin in Human Blood Using Hemoglobinometer; Separation of Plant Pigments Using Thin Layer Chromatography) in Workshop for school Teachers in Biological Chemical Sciences organized by Department of Biochemistry under the Aegis of DBT Star College Scheme, Shivaji College, University of Delhi from March 22-26, 2021.
15. Served as Resource Person (Separation of Proteins and Nucleic Acids Using Electrophoresis) in Intra-College Laboratory Skill Training Programme for Assistants/ Attendants in Chemical & Life Sciences organized by Department of Biochemistry under the Aegis of DBT Star College Scheme, Shivaji College, University of Delhi from February 8-12, 2021.
16. Served as Resource Person (Introduction and Applications of Vis-Spectrophotometer) in Intra-College Laboratory Skill Training Programme for Assistants/ Attendants in Chemical & Life Sciences organized by Department of Biochemistry under the Aegis of DBT Star College Scheme, Shivaji College, University of Delhi from November 27-December 03, 2019.
17. Served as Resource Person (Preparation of Gels for Electrophoresis) in Laboratory Skill Training Programme for Assistants/ Attendants in Chemical & Life Sciences organized by Department of Biochemistry under the Aegis of DBT Star College Scheme, Shivaji College, University of Delhi from May 20-24, 2019.
18. Invited lecture (Nanotechnology to Microbiology: Characterization of Dendrimers and Accessing Microbial Diversity) in XXIX QIP: New Trends in Pharmaceutical Sciences, AICTE sponsored Quality Improvement Programme (QIP) organized by Delhi Pharmaceutical Sciences and Research University (DPSRU), New Delhi on April 08, 2019.
19. Invited lecture (Cross talk between Nano-materials and Microbiology) in XXXI QIP: New Trends in Pharmaceutical Sciences, AICTE sponsored Quality Improvement Programme (QIP) organized by Delhi Pharmaceutical Sciences and Research University (DPSRU), New Delhi on April 05, 2019.
20. Invited lecture (Emerging Trends from Nano to Micro) in XXX QIP: New Trends in Pharmaceutical Sciences, AICTE sponsored Quality Improvement Programme (QIP) organized by Delhi Pharmaceutical Sciences and Research University (DPSRU), New Delhi on March 27, 2019.
21. Oral Presentation (Fricohesity and Survismeter: New Trends for Low Surface energy Nanoemulsions and Physicochemical Sensors) in International Conference on Recent Advances at Interfaces of Physical and

Life Sciences sponsored by sponsored by Indian Council of Chemists, International Society for Life Sciences, Department of Science & Technology organized by Department of Chemistry, University of Rajasthan Jaipur from January 28-30, 2019.

22. Oral Presentation (Exploring Microbial Diversity of Yamuna River: A Step Towards Bioremediation) in 4th International Conference on Science and Arts of Holistic Health: Issues, Challenges, Prevention, Awareness organized by Krishi Sanskriti Publication & Dr. G. C. Mishra Educational Foundation at Convention Centre, JNU, ND on Feb. 25, 2017.
23. Oral Presentation (A natural Drugstore: A Comparative Analysis.....Therapeutic Importance) in 2nd International Conference on Public Health : Issues, Challenges, Opportunities, Prevention, Awareness Convention Centre organized by Krishi Sanskriti at Jawaharlal Nehru University (JNU), New Delhi on May 21, 2016
24. Oral Presentation (Physicochemical Synergetics of Liquid Mixture of Functional Molecules: Oscoservimeter and Survismeter) in International Conference on Measurement and Test Methodologies and Applications (MTMTA2016) organized by **Science and Engineering Research Center (SERC), Phuket, Thailand from April 15-16, 20216.**
25. Oral Presentation (Yamuna River A Toxicity Reservoir: Environmental Restoration Through Bioremediation Approach) in International Conference on Public Health : Issues, Challenges, Opportunities, Prevention, Awareness organized by Daulat Ram College, University of Delhi from Jan. 15-16, 2016.
26. Oral Presentation (Neurodegenerative Disorder: Molecular mechanism of Alzheimer's) in National Conference on Understanding the mechanism and challenges of complex diseases organized by Shaheed Rajguru College of Applied Sciences, University of Delhi (UMCCD-2014) from Dec 29-30, 2014.
27. Oral Presentation (Microbial Fuel Cell: A Promising Technology for Harnessing Bioenergy from Yamuna Water) in International Conference on Life Sciences, Informatics, Food and Environment (IC LIFE) organized by Jaypee Institute of Information & Technology, Noida from Aug. 29-30, 2014.
28. Resource Person (Electrophoresis) in Laboratory Skill Training Programme for Assistants/ Attendants in Chemical & Life Sciences, organized under the Aegis of DBT Star College Scheme, Department of Biochemistry, Shivaji College, DU from July 16-18, 2014.
29. Invited talk on "Production, Separation and Applications of Enzymes" in DST Inspire Internship Science Camp, sponsored by Department of Science and Technology, Govt. of India, organized by A.S. College, Khanna, Punjab on Dec 25, 2012.
30. Delivered invited lecture (Survismeter: A Instrument for Green Chemistry) in Recent Advances in "Green Chemistry" and Chromatography Sciences International Symposium organized by Manav Rachna International University, Faridabad (Haryana) in collaboration with Indian Society of Analytical Scientists (Delhi) on Jan. 12-14, 2012.

Other Academic Activities

- ✧ Served as **Coordinator** of the following mentioned **Inspire Science Camp sponsored by Department of Science & Technology (DST), Govt. Of India** at Shivaji College, University of Delhi.
December 19-23, 2015
December 14-18, 2016
July 16-20, 2018
- ✧ Participated in Group Monitoring Workshop for the INSPIRE INTERNSHIP SCIENCE CAMP ORGANIZERS 2018 organized by University of Science & Technology (USTM), Meghalaya from June 25-26, 2018 at Techno City, 9th Mile, Meghalaya.
- ✧ Received Certificate of Appreciation from Department of Science & Technology (DST), Govt. Of India for the valuable contributions towards coordinating the INSPIRE INTERNSHIP Science Camp under the INSPIRE INTERNSHIP Component of INSPIRE Program during 2016-17 at Shivaji College, University

of Delhi.

- ✧ Participated in Group Monitoring Workshop for the INSPIRE INTERNSHIP SCIENCE CAMP ORGANIZERS organized by Sri Venkateswara University, Tirupati from August 26-27, 2017.
- ✧ Workshop for organizers of DST INSPIRE Internship Camps 2016 organized by Department of Science and Technology (DST), Goa University, Goa March 12- 13, 2016.

Cultural/Extracurricular Activities

Convener of **Chhatrapati Shivaji Maharaj Jayanti Celebrations**, felicitation of the Jijabai Achievers Awardees of 2025-26 and **Vasant Utsav 2026, a initiative of Delhi Government -Bhajan Clubbing (SAM)** organized by the Women's Development Cell and Cultural Committee, Shivaji College, University of Delhi on February 19, 2026.

Educational Trips

1. National Forensic Sciences University (NFSU), LNjN-NICFS Campus, Near Jaipur Golden Hospital, Outer Ring Rd, Institutional Area, Sector 3, Rohini, Delhi-110085 , for Students of SEC Paper: Basics in Forensic Sciences and B.Sc. (Hons.) Biochemistry (SEM IV & VI) on March 7, 2025.
2. Department of Plant Molecular Biology (PMB), University of Delhi South Campus, Dhaula Kuan, New Delhi-110021, India on Nov. 10, 2023.
3. Department of Biochemistry, University of Delhi, South Campus on March 22, 2022.
4. A virtual lab tour of the Forensic Biology and Biotechnology Laboratory, National Forensic Sciences University, Gandhinagar, Gujarat was organized by Department of Biochemistry, Shivaji College, University of Delhi, INDIA under the aegis of Department of Biotechnology sponsored Star College Scheme, Govt. of INDIA on February 25, 2022.
5. Prof. Girdhar K. Pandey, PMB, University of Delhi South Campus, Dhaula Kuan, New Delhi-110021, India on Sept. 23, 2022.
6. International Virtual Educational Lab Tour of Dr. Kristina Kirschner, Group Leader, Stem Cell Ageing, Cancer Research UK Beatson Institute Glasgow, Scotland, United Kingdom on Oct. 8, 2022.
7. National Brain Research Centre (NBRC), NH-8, Manesar, Gurugram, Haryana on Nov. 4, 2022.
8. Educational visit to Institute of Liver and Biliary Science (ILBS, A dedicated centre of excellence in healthcare, teaching/training and research), Vasant Kunj, New Delhi on July 19, 2018.
9. An educational trip was organized for B.Sc (Hons.) Biochemistry students to National Brain Research Centre (NBRC), Manesar, Gurugram (Haryana) on September 28, 2017.
10. Regional Centre for Biotechnology (RCB, An academic institution established by the Department of Biotechnology, Govt. of India with regional and global partnerships synergizing programmes of UNESCO as a Category II Centre), NCR Biotech Science Cluster, Faridabad-Gurgaon Expressway, Faridabad, Haryana (NCR Delhi) on December 17, 2016.
11. **Gyanodaya IV (College on Wheels, Topic: Urbanization Now and Then)** of University of Delhi accompanied Shivaji College students in Gyanodaya IV as MENTOR of the Project entitled "Impact of Urbanization on Research and Technology". Was appointed as COACH CO-ORDINATOR in this educational trip from March 12 - 19, 2014.

Sunita Singh