




Shivaji College Faculty Details Proforma

| Title | Dr. | First Name | NIDHI | Last Name | GARG | Photograph |
|-----------------------------------|-----|--|-------|-----------|------------------|---|
| Designation | | ASSISTANT PROFESSOR | | | |  |
| Address | | HOUSE NO 136-137, POCKET E-16, SECTOR 8, ROHINI, DELHI-110085 | | | | |
| OfficePhone No. | | NA | | | | |
| Residence | | NA | | | | |
| Mobile | | 9811929484 | | | | |
| Email | | nidhigarg1804@gmail.com,nidhilucky9@gmail.com | | | | |
| Web-Page | | NIL | | | | |
| Educational Qualifications | | | | | | |
| Degree | | University/Institute | | | Year | |
| Ph.D. | | DEPARTMENT OF ZOOLOGY,UNIVERSITY OF DELHI | | | 2012 | |
| M.Phil./M.Tech. | | NIL | | | | |
| PG | | HANSRAJ COLLEGE, UNIVERSITY OF DELHI | | | 2008 | |
| UG | | SRI VENKATESHWARA COLLEGE, UNIVERSITY OF DELHI | | | 2006 | |
| Any Other Qualification | | UNIVERSITY TEACHING ASSISTANT IN THE DEPARTMENT OF ZOOLOGY | | | 2009-2012 | |
| Career Profile | | | | | | |

University Teaching Assistant (2009-2012)

Taught master courses to post-graduate students in the Department of Zoology, University of Delhi, Delhi.

Assistant Professor (23rd July – 23rd November 2012)

Taught bachelor courses to under-graduate students in the Deen Dayal Upadhyay College, University of Delhi, Delhi.

Assistant Professor (3rd January 2013 – 22nd May 2015)

Taught bachelor courses to under-graduate students in the Hindu College, University of Delhi, Delhi.

Assistant Professor (3rd October 2015 – 19th May 2017)

Taught bachelor courses to under-graduate students in the Deshbandhu College, University of Delhi, Delhi.

Assistant Professor (31st July 2017 – 17th February 2018)

Taught bachelor courses to under-graduate students in the Daulat Ram College, University of Delhi, Delhi.

Assistant Professor (19th February 2018 – 23rd June 2018)

Teaching bachelor courses to under-graduate students in the Gargi College, University of Delhi, Delhi.

Assistant Professor (Guest) (26th July 2018 – 16th November 2018, 1st January 2019-16th April 2019)

Teaching bachelor courses to under-graduate students in the Shraddhanand College, University of Delhi, Delhi.

Assistant Professor (Guest) (30th July 2018 – 16th November 2018, 1st January 2019-16th April 2019)

Teaching bachelor courses to under-graduate students in the Kalindi College, University of Delhi, Delhi.

Assistant Professor (25th July 2019 – 10th December 2021)

Teaching bachelor courses to under-graduate students in the Shivaji College, University of Delhi, Delhi.

Administrative Assignments

NIL

Areas of Interest/Specialisation

Research Experience:

1. Analysis of HCH residues and metabolites from HCH contaminated soil samples.

2. Isolation and characterization of Sphingomonads and *Pontibacter* species isolated from the HCH contaminated soils.
3. Determination of the degradation pathways of HCH isomers (α -, β -, γ -, δ - and ϵ -HCH) in Sphingomonads.
4. Standardization of growth of Sphingomonads in both small-scale (shake flask) and large-scale (fermentor of 50 L capacity).
5. Development of a microbial consortium for the bioremediation of HCH contaminated soils.
6. Conducted mesocosm study and field trials for the development of bioremediation technology for HCH contaminated sites.
7. Protein expression, purification by FPLC, SDS-PAGE, Enzyme assays, Enzyme kinetics.

Techniques Known:

1. **Molecular Biology:** Genomic and plasmid DNA isolation, Agarose gel electrophoresis, Restriction digestion of plasmid DNA, Transformation of bacterium like *Escherichia coli* with plasmid DNA using the method of electroporation and heat shock, Dot Blot hybridization, Gene cloning.
2. **DNA Sequencing:** Designing the gene sequencing primers using Gene runner software. Sequencing the 16S rRNA gene followed by sequence analysis using ABI Sequence Analyzer software. Multiple alignment of DNA sequences using BioEdit and CustalW software
3. **Protein:** Protein expression, His-tagged protein purification by FPLC, SDS-PAGE, Digital image analysis, Enzyme assays, Enzyme kinetics.
4. **Microbiology:** Preparation of different types of culture media, Pouring of culture media plates, slants and stabs, Isolation, purification and maintenance of bacterial cultures, Streaking and spreading of bacterial cultures, Staining techniques, Lyophilization of bacterial cultures and their revival, Measurement of bacterial growth by spectrophotometry and Serial dilution technique.
5. **Chromatography:** Thin Layer Chromatography (TLC), Reverse phase Thin Layer Chromatography (RP-TLC), Column Chromatography, Gas Liquid Chromatography (GLC), Gas Chromatography-Mass Spectroscopy (GC-MS), Fast pressure Liquid Chromatography (FPLC).
6. **Fermentation:** Mass cultivation of bacteria in large size fermentors.
7. **Bioinformatics:** Sequence analysis, genome annotation using Artemis (version 10) and RAST, database similarities searches, Multiple sequence alignment, Phylogenetic analysis (PHYLP, TreeCon, Mega4), Analytical softwares such as Clone Manager. MS-word, PowerPoint, Excel and Picture Manager.

Subjects Taught

ECOLOGY
 CELL BIOLOGY
 MOLECULAR BIOLOGY
 BIOTECHNOLOGY
 IMMUNOLOGY
 BIOCHEMISTRY
 DIVERSITY OF CHORDATES
 PHYSIOLOGY AND BIOCHEMISRY
 SERICULTURE
 APICULTURE
 ANIMAL DIVERSITY

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

NIL

Publications Profile (Research Papers/Books)

1. **Garg, N.** and Lal, R. 2010. Synthetic Biology: Bacteria overtake computers. (News and Views). *Indian J. Microbiol.* 50:113-114. ISSN: 0046-8991 (print version) ISSN: 0973-7715 (electronic version). **Impact factor- 0.901**
2. Anand, S., Malhotra, J., Dua, A., **Garg, N.**, Saxena, A., Sangwan, N., Lal, D., Verma, M., Jindal, S., Kaur, J., Kumari, K., Nigam, A., Niharika, N., Kaur, J. and Lal, R. 2010. A New Life in a Bacterium through Synthetic Genome: Landmark experiments by Craig Venter. *Indian. J. Microbiol.* **50**:125-131. ISSN: 0046-8991 (print version), ISSN: 0973-7715 (electronic version). **Impact factor- 0.901**
3. Jit, S., Dadhwal, M., Kumari, H., Jindal, S., Kaur, J., Lata, P., Niharika, N., Lal, D., **Garg, N.**, Gupta, S. K., Sharma, P., Bala, K., Singh, A., Vijgen, J., Weber R. and Lal, R. 2011. Evaluation of hexachlorocyclohexane contamination from the last Lindane production plant operating in India. *Environ. Sci. Pol. Res.* **18**:586-597. ISSN: 0944-1344 (print version) ISSN: 1614-7499 (electronic version). **Impact factor- 2.65**
4. **Garg, N.**, Bala, K. and Lal R. 2012. *Spingobium lucknowense* sp. nov., a hexachlorocyclohexane (HCH) degrading bacterium isolated from HCH contaminated soil. *Int. J. Syst. Envol. Microbiol.* **62**: 618-623. ISSN: Print 1466-5026; Online 1466-5034. **Impact factor- 2.112**
5. Geueke, B., **Garg, N.**, Ghosh, S., Fleischmann, T., Holliger, C., Lal, R., and Kohler H-P., E. 2012. Metabolomics of hexachlorocyclohexane (HCH)-transformation: Ratio of LinA to LinB determines metabolic fate of HCH isomers. *Environ. Microbiol. and Environ. Microbiol. Reports* 15: 1040-1049. Online ISSN: 1758-2229. **Impact factor- 2.708.**
6. Dwivedi, V., Sangwan, N., Nigam, A., **Garg, N.**, Niharika, N., Khurana, P., Khurana, J., and Lal R. 2012. Draft Genome Sequence of *Thermus* sp. RL Isolated from Hot Water Spring Located

atop the Himalayan Ranges at Manikaran, India. *J. Bacteriol.* **194**:3297-3568. Print ISSN: 0021-9193 Online ISSN: 1098-5530. **Impact factor- 3.5**

7. Sangwan, N., Lata, P., Dwivedi, V., Singh, A., Niharika, N., Kaur, J., Anand, S., Malhotra, J., Jindal, S., Nigam, A., Lal, D., Dua, A., Saxena, A., **Garg, N.**, Verma, M., Kaur, J., Mukherjee, U., Gilbert, J. A., Dowd, S. E., Raman, R., Khurana, P., Khurana, J. P. and Lal R. 2012. Comparative Metagenomic analysis of soil microbial communities across three Hexachlorocyclohexane gradients. *PLOS One*. (DOI: 10.1371/journal.pone.0046219). ISSN No.1932-6203. **Impact factor- 4.05**

8. Singh, A. K., **Garg, N.**, Vikram, S. and Lal, R. 2013. *Pontibacter ramchanderi* sp. nov., isolated from hexachlorocyclohexane (HCH) contaminated soil sediment in pond located in the vicinity of lindane production unit. *Int. J. Syst. Evol. Microbiol.* 63:2829-2834. ISSNs: Print 1466-5026; Online 1466-5034. **Impact factor- 2.112**

9. Gupta, S. K., Lal, D., Lata, P., Sangwan, N., **Garg, N.**, Holliger, C. and Lal, R. 2013. Changes in the bacterial community and *lin* genes diversity during biostimulation of indigenous bacterial community of Hexachlorocyclohexane (HCH) dumpsite soil. *Microbiology*. 82: 234-240. ISSNs: 1350-0872 (Print); 1465-2080 (Online). **Impact factor- 2.852**

10. Singh, A. K., **Garg, N.**, Negi, P. L., Kumar, R., Negi, V., Vikram, S., and Lal, R. 2014. *Pontibacter indicus* sp. nov., isolated from hexachlorocyclohexane (HCH) contaminated soil. *Int. J. Syst. Evol. Microbiol.* 64: 254–259. ISSNs: Print 1466-5026; Online 1466-5034. **Impact factor- 2.112**

11. Singh, A. K., **Garg, N.**, and Lal, R. 2015. *Pontibacter chinhatensis* sp. nov., isolated from pond sediment containing discarded waste of Hexachlorocyclohexane (HCH) isomers. *Int. J. Syst. Evol. Microbiol.* 65: 2248-2254. ISSNs: Print 1466-5026; Online 1466-5034. **Impact factor- 2.112**

12. Dwivedi, V., Kumari, K., Gupta, S. K., Kumari, R., Tripathi, C., Lata, P., Niharika, N., Singh, A. K., Kumar, R., Nigam, A., **Garg, N.** and Rup Lal. 2015. *Thermus parvatiensis* RLT sp. nov., isolated from a hot water spring, located atop the Himalayan ranges at Manikaran, India. *Indian J. Microbiol.* 55(4): 357–365. ISSN: 0046-8991 (print version) ISSN: 0973-7715 (electronic version). **Impact factor- 0.901**

13. **Garg, N.**, Negi, P. L., Jit, S., Sangwan, N., Singh, A. K., Dwivedi, V. Niharika, N., Kaur, J., Saxena, A., Dua, A., Nayyar, N., Kohli, P., Geueke, B., Kunz, P., Rentsch, D., Holliger, C., Kohler H-P. E., and Lal, R. 2016. Field scale bioremediation of hexachlorocyclohexane (HCH) contaminated soils by means of bioaugmentation and biostimulation. *Biodegradation*. 27(2-3):179-193. ISSN: 0923-9820 (print version) ISSN: 1572-9729 (electronic version) **Impact factor-2.5**

14. Goel, S and **Garg, N.** 2018. Newest Therapeutic Approaches for Tinnitus Matching and Treatment. *J Otolaryngol ENT Res.* 10(6):352-353. ISSN: 2379-6359. Impact factor- 0.628.

15. **Nidhi Garg**, Sachin Goel and Indrakant Kumar Singh. Sushruta: The guru of plastic surgery and the progenitor of rhinoplasty. *School Science* (ISSN 0972-5060) published by NCERT. (Accepted)

Chapters written:

1. Shailly Anand, Jaya Malhotra, Neha Niharika, Devi Lal, Swati Jindal, Jaspreet Kaur, Aeshna Nigam, **Nidhi Garg**, Pushp Lata, Jasvinder Kaur, Naseer Sangwan, Amit Kumar Singh, Ankita Dua, Anjali Saxena, Vatsala Dwivedi, Udita Mukherjee and Rup Lal. 2013. "Bioremediation of Hexachlorocyclohexane (HCH) Pollution at HCH Dump Sites." Knowledge Systems of Societies for Adaptation and Mitigation of Impacts of Climate Change. Environmental Science and Engineering. 387-404. DOI 10.1007/978-3-642-36143-2_23. Online ISBN 978-3-642-36143-2.

Impact factor- 3.5.

2. Simran Jit and **Nidhi Garg**. 2015. RNA Structure & Function. Subject Zoology (Molecular biology). Institute of Life Long Learning. ISSN: 2349-145X

3. **Nidhi Garg**. and Kiran Bala 2015. Microbial Growth Kinetics. Subject Zoology (Biotechnology). Institute of Life Long Learning. ISSN: 2349-145X

4. **Nidhi Garg** 2015. Food biotechnology: Applications of biotechnology in making wine and beer. Subject Zoology (Biotechnology). Institute of Life Long Learning. ISSN: 2349-145X

5. **Nidhi Garg**. and Simran Jit 2015. Fermentation Process. Subject Zoology (Biotechnology). Institute of Life Long Learning. ISSN: 2349-145X

6. **Nidhi Garg**. and Dr. A. Archana. 2015. Applications of Food biotechnology: fermented dairy products and bread. Subject Zoology (Biotechnology). Institute of Life Long Learning. ISSN: 2349-145X

7. **Nidhi Garg**. and Simran Jit. 2015. Fermentation Products and Downstream Processing. Subject Zoology (Biotechnology). Institute of Life Long Learning. ISSN: 2349-145X

8. Kiran Bala and **Nidhi Garg**. 2016. Chromosomal Mutations. Subject Zoology (Genetics). Institute of Life Long Learning. ISSN: 2349-145X

9. Simran Jit and **Nidhi Garg**. 2016. Applications of microbes in industry: Production of primary and secondary metabolites. Subject Zoology (Biotechnology). Institute of Life Long Learning. ISSN: 2349-145X

10. **Nidhi Garg** and Roshan Kumar. (2016). Comparative genomics. Chapter 2: Module 5. Subject: Molecular Genetics. E-lesson epathshala under NME-ICT, MHRD.

11. **Nidhi Garg** (2016). RNA mediated mechanisms: RNA Interference. Chapter 8: Module 21. Subject: Molecular Genetics. E-lesson epathshala under NME-ICT, MHRD.

12. **Nidhi Garg** (2016). Microarray Part I. Chapter 11: Module 29. Subject: Molecular Genetics. E-lesson epathshala under NME-ICT, MHRD.

13. **Nidhi Garg** (2016). Microarray Part II. Chapter 11: Module 29. Subject: Molecular Genetics. E-lesson epathshala under NME-ICT, MHRD.

14. **Nidhi Garg** and Helianthous Verma (2016). Large scale analysis of genome: Metagenomics. Chapter 13: Module 39. Subject: Molecular Genetics. E-lesson epathshala under NME-ICT, MHRD.

15. **Nidhi Garg** (2016). Large scale analysis of genome: Human Genome Project Part I. Chapter 13: Module 41. Subject: Molecular Genetics. E-lesson epathshala under NME-ICT, MHRD.

16. **Nidhi Garg** (2016). Large scale analysis of genome: Human Genome Project Part II. Chapter 13: Module 42. Subject: Molecular Genetics. E-lesson epathshala under NME-ICT, MHRD.

17. **Nidhi Garg** and Udita Mukherjee (2017). RNA mediated mechanisms: Micro RNA and Si-RNA. Chapter 8: Module 22. Subject: Molecular Genetics. E-lesson epathshala under NME-ICT, MHRD.

18. **Nidhi Garg** and Anjali Saxena (2017). Model organisms in genetics: *E. coli*, *Sacchromyces cereviceae*, *Arabidiopsis thaliana*. Chapter 9: Module 23. Subject: Molecular Genetics. E-lesson epathshala under NME-ICT, MHRD.
19. **Nidhi Garg** and Helianthous Verma (2017). Large scale analysis of genome: Functional Genomics. Chapter 13: Module 36. Subject: Molecular Genetics. E-lesson epathshala under NME-ICT, MHRD.
20. **Nidhi Garg** and Jaya Malhotra (2017). Model organisms in genetics: *Drosophila melanogaster*, *Caenorhabditis elegans*. Chapter 9: Module 24A. Subject: Molecular Genetics. E-lesson epathshala under NME-ICT, MHRD.
21. **Nidhi Garg** and Jaya Malhotra (2018). Large scale analysis of genome: System Biology. Chapter 13: Module 43. Subject: Molecular Genetics. E-lesson epathshala under NME-ICT, MHRD.
22. **Nidhi Garg** and Jaya Malhotra (2018). Model organisms in genetics: *Mus musculus* and Zebra Fish. Chapter 9: Module 24B. Subject: Molecular Genetics. E-lesson epathshala under NME-ICT, MHRD.
23. **Nidhi Garg** and Shanuja Beri (2018). Transport across cell membrane: Diffusion, facilitated transport, active transport. Subject: Cell Biology. E-lesson epathshala under NME-ICT, MHRD.
24. **Nidhi Garg** and Shanuja Beri (2018). Structure and function of biomembranes. Subject: Cell Biology. E-lesson epathshala under NME-ICT, MHRD.

Online Articles

1. Nipah Virus- A new Biological Threat. <http://www.sciphoria.com/2018/05/nipah-virus.html>.

Conference/Seminar/Faculty Development Programme/Workshop

Overseas Conferences Attended:

1. Attended the 4th FEMS (Federation of European Microbiological Societies) conference from 26-30th June 2011, at Geneva, Switzerland.
2. Attended the ICCE (EuCheMS International Conference on Chemistry and the Environment) conference “Emerging Issues in Environmental Chemistry: from Basic Research to Implementation” 14th September 2011, at ETH Zurich, Switzerland.

Indian Conferences/Seminars/FDP/Workshops:

3. Participated in 49th Annual Conference of The Association of Microbiologists of India entitled “International Symposium on Microbial Biotechnology: Diversity, Genomics & Metagenomics” from 18-20th November, 2008 at University of Delhi, Delhi, India.
4. Participated in meeting of Indo Swiss Collaboration in Biotechnology (ISCB) project (Phase III) entitled “Environmental Risk and Bioremediation of Hexachlorocyclohexane Isomers” held on 16th November, 2009 at the Department of Zoology, University of Delhi, Delhi, India.
5. Participated in 51st Annual Conference of The Association of Microbiologists of India entitled “International Symposium on Recent Advances in Cross-disciplinary Microbiology: Avenues & Challenges” from 14-17th December, 2010 at Birla Institute of Technology, Ranchi, Jharkhand, India.

6. Participated in International Conference on “Recent trends in Developing Bioremediation Strategies for Hexachlorocyclohexane (HCH) & Other Chlorinated Contaminants” organized by Indo-Swiss Collaboration in Biotechnology (ISCB) from 9-11th February 2011 at University of Delhi, Delhi, India.
7. Participated in ISCB International Symposium entitled “A decade experience in R&D and Technology Management” organized by Indo-Swiss Collaboration in Biotechnology (ISCB) from 10-11th March 2011, Symposium Hall, NASC Complex, New Delhi, India.
8. Participated in AMI conference entitled International Conference on Microbial Biotechnology for Sustainable Development” from 3-6th November 2011 at Panjab University, Chandigarh, India.
9. Participated as a **resource person** in the workshop on “Biotechnology: Trends and Techniques” from 28th-31st May, 2013 held at the Department of Zoology, Hindu College, University of Delhi, Delhi.
10. Participated in ASM virtual workshop on “The Art of Science Communication” on 4th September, 2013 at Ramjas College, University of Delhi, Delhi-110007.
11. Participated in the workshop on “Applied Genomics and Proteomics” from 12th-14th March, 2014, held at Deshbandhu College In Association with BioRad, University of Delhi, New Delhi.
12. Participated in the “Purple Day Programme” on 25th March, 2014, held at SGTB Khalsa College, University of Delhi, Delhi.
13. Participated in the 9th Annual Symposium on “Frontiers in Biomedical Research” from 14th - 16th April, 2014, held at Ambedkar Centre for Biomedical Research, University of Delhi, Delhi.
14. Participated in 1st International conference on “Emerging Trends of Nanotechnology in Drug Discovery” from 26-27th May, 2014, held at, University of Delhi, South Campus, New Delhi, India.
15. Participated in the workshop on “Scientific Writing and Oral Presentation” held on 6th December, 2014, at Hindu College, University of Delhi, Delhi.
16. Participated in workshop on “Biochemistry of Metabolic Processes” held on 2nd February, 2015, at Kirori Mal College, University of Delhi, Delhi.
17. Participated in National Symposium on “Vector Biology and Vector Management” held on 12th February, 2015, at Deshbandhu College, University of Delhi, New Delhi.
18. Participated in DBT Star College Project involving a One Day Workshop on “Applications of Flow Cytometry” held on 20th March, 2015, at Miranda House, University of Delhi, Delhi.
19. Participated in the workshop on “Renovating Bacterial Taxonomy with Bioinformatics” held on 14-15th May, 2015, at the Department of Zoology, University of Delhi, Delhi.
20. Participated in the Young Scientist Conference as part of the “India International Science Festival” held from 4th-8th December, 2015 at IIT, Delhi.
21. Participated as an **organizing member** in the “INSPIRE Internship Programme-2015” held from 14th-18th December, 2015, at Deshbandhu College, University of Delhi, New Delhi.
22. Participated in the workshop on “Training the Trainers: IPR Workshop” held on 15th January, 2016, at Miranda House, University of Delhi, Delhi.
23. Participated as a **resource person** in the National Symposium entitled “Reproductive Biology: Concerns and Awareness” held on 12th February, 2016, at the Department of Zoology, Deshbandhu College, University of Delhi, New Delhi.

24. Participated as an **organizing member** in the Second National Symposium on “Environment: Greener Future & Awareness” held on 19th March, 2016, at Deshbandhu College, University of Delhi, New Delhi.
25. Participated in the National Workshop on “Recent Trends in Biochemistry and Biotechnology (NRTBB-2016)” held from 21st-22nd April, 2016, at Deshbandhu College, University of Delhi, New Delhi.
26. Participated as an **organizing member** in the Third National Symposium on “Environment: Challenges Generation Next” held on 31st March, 2017, at Deshbandhu College, University of Delhi, New Delhi.
27. Participated in the Workshop on “Women Health and Cancer Awareness Workshop” held on 7th April, 2017, at Miranda House, University of Delhi, Delhi.
28. Participated in the National Conference & Workshop on “Trends and Scope of Forensic Science” held from 11-12th April, 2017, at Acharya Narendra Dev College, University of Delhi, New Delhi.
29. Participated in the workshop on “Mosquito-Borne Diseases in India: Acquire SKILLS-Mosquito KILLS” held on 18th August, 2017, at the Department of Zoology, Hindu College, University of Delhi, Delhi.
30. Participated in INSCR International conference (IIC-2017) on “Role of Microbe-Plant-Animal Interactions in Human Health” from 26-28th September, 2017, held at, University of Delhi, Delhi, India.
31. Attended the National Conference on “A Multidisciplinary Approach Towards Sustainability: A Novel Design” held on 23rd January, 2018, at the Daulat Ram College, University of Delhi, Delhi.
32. Participated in the **Faculty Development Programme** for the paper Wildlife Management held on 19th February, 2018, at Sri Venkateshwara College, University of Delhi, New Delhi.
33. Participated as an **organizing committee member** in the Symposium on “Wonderers of Nature: Exploring Wildlife” held on 12th March, 2018, Department of Zoology, Gargi College, University of Delhi, New Delhi.
34. Participated in National Conference on “Innovation in Sciences in Emerging Challenges in Health and Environment (NSHE-2018)” held on 20th March, 2018, at the Daulat Ram College, University of Delhi, Delhi.
35. Attended the 2nd Task Force meet under Star College scheme on 8th and 9th May, 2018, held at Gargi College, University of Delhi, New Delhi.
36. Participated in National Conference on “Ancient Indian Knowledge: Science and Technology” from 17-19th July, 2018, held at, NIE Campus, NCERT, New Delhi, India.
37. Participated in the National Symposium on “Environment: Green Technology for Environmental Sustainability”, held on 25th September, 2018, at Deshbandhu College, University of Delhi, New Delhi.
38. Participated in National Seminar on “New Trends in Nanotechnology and Applications” from 27-28th October, 2018, held at, Atma Ram Sanatan Dharma College, University of Delhi, New Delhi.
39. Participated in **Faculty Development Programme** on “Sustainable Development” from 27-28th October, 2018, held at, Atma Ram Sanatan Dharma College, University of Delhi, New Delhi.
40. Participated in National Conference on “Urban Environmental Sustainability” from 7th- 8th February, 2019, held at Kalindi college, University of Delhi, New Delhi.

41. Participated in National Seminar on “Use of Scientific & Technical Terminologies in Sustainable Environment Development, its Challenges, Computational Analysis and Opportunities” held from 14th- 16th March, 2019, held at, Gargi College, University of Delhi, New Delhi.
42. Participated in International Conference on “Changing Environment: Understanding the Emerging Challenges and their Management Strategies With Pre-conference Workshop “The Foldscape” from 10th – 12th April, 2019, held at Conference Centre, University of Delhi, New Delhi.
43. Participated as **Member, organizing committee** for Campus Dragonfly Count Survey, workshop and Lecture, August 20, 2019, under DBT Star College Scheme in collaboration with WWF India, Bombay Natural History Society (BNHS) & CEC Delhi.
44. Participated in International Seminar on “Science, Environment and Spirituality (ISSES 2019)” on 13th September, 2019, held at, Shivaji College, University of Delhi, New Delhi.
45. Participated as **Member, organizing committee** for Campus Butterfly Count Survey, workshop and Lecture September 19, 2019, under DBT Star College Scheme in collaboration with WWF India, Bombay Natural History Society (BNHS) & CEC Delhi.
46. Participated as organizing committee member in the one-day National Seminar On “Recent Trends in Biological Research and Career Prospects” on 27th September, 2019, held at, Shivaji College, University of Delhi, New Delhi.
47. Participated in National Conference on “Insect-Plant Biology in 21st Century” from 4-5th November, 2019, at Deshbandhu College, University of Delhi, New Delhi.
48. Participated in one day Seminar on “Intellectual Property Rights” on 6th November, 2019, held at, Shivaji College, University of Delhi, New Delhi- With Pratima Rani Mam (Botany)
49. Participated as **Resource person** for the inter college LABORATORY SKILL TRAINING PROGRAMME, 2019 for Laboratory Assistants/Attendants in the Chemical and Life Science Laboratories from 27th November–3rd December, 2019, held at, Shivaji College, University of Delhi, New Delhi.
50. Participated as **Organizing member** for the inter college LABORATORY SKILL TRAINING PROGRAMME, 2019 for Laboratory Assistants/Attendants in the Chemical and Life Science Laboratories from 27th November–3rd December, 2019, held at, Shivaji College, University of Delhi, New Delhi.
51. Participated in National Conference on “Relationship between Chemical Sciences and Society (RCSS-2020)” from 16th-17th January, 2020, at Shivaji College, University of Delhi, New Delhi.
52. Participated in the Webinar (Under the Aegis of IQAC) on Mind Matters: Coping with Stress, organised by Women Development Cell, Shivaji College, University of Delhi on May 11, 2020.
53. Participated in the National Webinar in Under the Aegis of IQAC entitled “Changing Paradigm of Research in Covid Era” organized by Department of Commerce, Shivaji College, University of Delhi, New Delhi, held on May 12, 2020.

54. Participated in the National Webinar in entitled “Constructive Living and Education in the times of Corona Crisis” organized by Internal Quality Assurance Cell, Shivaji College, University of Delhi, New Delhi, held on May 13, 2020.
55. Participated in the National Webinar- I " Biodiversity and Man” organized by the Department of Botany, Dyal Singh College, University of Delhi, in collaboration with Society for Ecological Research and Natural Resources Management (SERNRM) New Delhi, held on June 5, 2020.
56. Participated as **Member of organizing committee** for the Six Week Online Summer Internship Training “COVID-19: Epidemiology and Impacts” held under the DBT Star College Scheme from 15th June - 26th July, 2020 on Zoom platform.
57. Participated as **Resource person** for the Six Week Online Summer Internship Training “COVID-19: Epidemiology and Impacts” held under the DBT Star College Scheme from 15th June- 26th July, 2020 on Zoom platform.
58. Participated as **Member of organizing committee** for the webinar “Guidance Program regarding Entrance Examination 2020” held under the DBT Star College Scheme on 16th June, 2020 at 02.30 am on Zoom platform.
59. Participated in the three-day Power Yoga Sessions organised by NSS Unit on the occasion of International YOGA Day, Shivaji College, University of Delhi from June 19-21, 2020.
60. Participated in the International Webinar on ‘Surviving the Pandemic Crisis: Stress and Lifestyle Management’ organised by NSS Unit, Shivaji College, University of Delhi held on June 27, 2020.
61. Participated in the National Webinar on ‘Legume Diversity in India’ organised by Society for Ecological Research and Natural Resources Management (SERNRM) held on June 30, 2020.
62. Participated in the online webinar entitled “Cyber Security Awareness: II” organized by Bhaskaracharya College of Applied Sciences, held on July 03, 2020.
63. Participated in the online webinar entitled “Quitting Tobacco Made Easy” organized by Innovative Cancer Care and Rehabilitation Pvt. Ltd. (ICanCaRe) in association with Max Institute of Cancer care Vaishali, held on July 05, 2020.
64. Participated as **Member of organizing committee** for the webinar “Epidemiology, Detection, Treatment and Comparative Genomics of SARS-CoV-2 and Managing Personal and Professional Life During COVID-19 Pandemic and Lockdown” held under the DBT Star College Scheme on 09th July, 2020 at 11.00 am on Zoom platform.
65. Participated as **Member of organizing committee** for the webinar “Importance of IPR in Pandemic situation: Special focus on Expedite Patent Processing” held under the DBT Star College Scheme on 11th July, 2020 at 11.00 am on Zoom platform.
66. Participated in the National Webinar- I "Impact Centric Research: Funding Opportunities and Challenges in Framing Successful Research Proposal” organized by Research Cell, Shivaji College, University of Delhi, New Delhi, held on July 11, 2020.
67. Participated in the National Webinar in Under the Aegis of IQAC ‘Nav Vimarsh: Ikkisvi Sadi entitled “Bharatiya Sanskriti Aur Mulya” organized by NSS Unit, Shivaji College, University of Delhi, New Delhi, held on July 17, 2020.

68. Participated in the online webinar entitled “Fostering Collaboration for a Tobacco Free Educational Institution” organized by Innovative Cancer Care and Rehabilitation Pvt. Ltd. (ICanCaRe), held on July 19, 2020.
69. Participated in the webinar entitled “Immunological Perspectives on COVID-19 Pandemic: A Discussion” organized by Department of Zoology, under the aegis of Internal Quality Assurance Cell, Hindu College, University of Delhi, on July 20, 2020.
70. Participated in the National Webinar in Under the Aegis of IQAC KALANJALI: Revering Art and Indian Culture entitled “Mandala Art Therapy” organized by NSS Unit, Shivaji College, University of Delhi, New Delhi, held on July 21, 2020.
71. Participated in the webinar entitled “Stress Management in the Times of COVID-19 Pandemic” organized by Women Development Cell, Shivaji College, University of Delhi, New Delhi, held on July 22, 2020.
72. Participated in the International webinar entitled “Environment Gender and Climate Change” organized by Department of Botany, Shivaji College, University of Delhi, New Delhi, held on July 28, 2020.
73. Participated in the International Webinar on “COVID-19; Living through the Pandemic” organized by Shrishti Chetna, Department of Zoology, Hansraj College, University of Delhi on July 29, 2020.
74. Participated in the online webinar entitled “Breaking Barriers: Communication made easy” organized by Innovative Cancer Care and Rehabilitation Pvt. Ltd. (ICanCaRe), held on August 02, 2020.
75. Participated in the online webinar entitled “De-Stress with Laughter Therapy and Live Entertainment” organized by Innovative Cancer Care and Rehabilitation Pvt. Ltd. (ICanCaRe), held on August 09, 2020.
76. Participated in the International webinar entitled “CONTROL MISSION OF THE CORONA PANDEMIC: Role of Government, NGO's and the Masses” organized by Deptt. of Zoology & IQAC Cell of Paliwal PG College, Shikohabad Firozabad (UP), held on August 11, 2020.
77. Participated in the online webinar entitled “Independence Day Special-Freedom from Slavery of Tobacco” organized by Innovative Cancer Care and Rehabilitation Pvt. Ltd. (ICanCaRe) in association with NSS Erode Arts and Science College Tamil Nadu, held on August 16, 2020.
78. Participated in the online webinar entitled “Women Special-Common Health Mistakes Made by Women” organized by Innovative Cancer Care and Rehabilitation Pvt. Ltd. (ICanCaRe), held on August 23, 2020.
79. Participated in the online webinar entitled “Cyber Security Awareness: V” organized by Bhaskaracharya College of Applied Sciences, held on August 29, 2020.
80. Participated in the online webinar entitled “EMPOWERING THE CENTRAL ADVISORY BOARD OF EDUCATION (CABE) UNDER THE NEW EDUCATION POLICY- 2020” organized by Department of Zoology, Paliwal PG College, Shikohabad Firozabad (UP) India, held on September 05, 2020.

81. Participated in One Day National Webinar entitled “Promotional Avenues for Teachers in Higher Education: CAS Regulations- 2018” organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) of MHRD on September 5, 2020. (This is equivalent to a regular One Day National Seminar).
82. Participated in the online webinar entitled “Empowering Teachers as Tobacco Marshals for a Tobacco Free India” organized by Innovative Cancer Care and Rehabilitation Pvt. Ltd. (ICanCaRe), held on September 09, 2020.
83. Participated in the online webinar entitled “Mind Body Soul- Awareness of Inner Self” organized by Innovative Cancer Care and Rehabilitation Pvt. Ltd. (ICanCaRe), held on September 13, 2020.
84. Participated in the National Webinar in Under the Aegis of IQAC AAROGYA: Essence of Healthy India entitled “Adolescent: Health Risk and Solution” organized by NSS Unit, Shivaji College, University of Delhi, New Delhi, held on September 14, 2020.
85. Participated in the Science Academies Online Lecture Workshop On “Frontiers in Science & Engineering - Opportunities for Graduates” organized by Science Foundation and MHRD-IIC-DDUC Chapter Deen Dayal Upadhyaya College, University of Delhi, New Delhi held on September 14-19, 2020
86. Participated as **Member of organizing committee** for the webinar “COMBATING THE MILLENNIUM PANDEMIC: DIAGNOSTICS AND INFECTION PREVENTION” held under the DBT Star College Scheme on 18th September, 2020 at 05.30 pm on Google meet.
87. Participated as **Member, organizing committee** for Campus Butterfly Count Survey, workshop and Lecture September 19, 2020, under DBT Star College Scheme in collaboration with WWF India, Bombay Natural History Society (BNHS) & CEC Delhi.
88. Participated in the e-National Symposium entitled “FOOD SAFETY AND HEALTH” organized by Deshbandhu College University of Delhi, New Delhi, held on September 19, 2020.
89. Participated as **Member of organizing committee** for the webinar “Plastics & Endocrine Disruption: A 21st Century Update” held under the DBT Star College Scheme on 23rd September, 2020 at 05.00 pm on Google meet.
90. Participated in the Webinar on ‘organised by NSS Unit, Shivaji College, University of Delhi on September 24, 2020.
91. Participated in the online workshop entitled “*Drosophila melanogaster*: A beginner's guide to culturing and maintenance” organized by Department of Biochemistry, Shivaji College, University of Delhi, New Delhi, held on November 12, 2020.
92. Participated in the Online Capacity Building Program entitled “Climate Change and Sustainable Development” organized by the Mahatma Gandhi Institute for Combating Climate Change, Department of Environment, Government of NCT of Delhi, December 14-18, 2020 (Timings: 3.30 - 4.45 PM).

93. Participated in the Webinar (Under the Aegis of IQAC) on Issues of Mental Health: Strengthening the Mind and Empowering the Woman organised by Women's Development Cell, Shivaji College, University of Delhi on January 15, 2021.
94. Participated in the National Webinar on "Impact of Coronaviruses on Human Central Nervous System: Latest updates and trends", organised by Department of Botany, Shivaji College, held on January 16, 2021.
95. Participated in the Webinar on "Don't Limit Yourself" organised by NSS Unit, Shivaji College, University of Delhi held on January 16, 2021.
96. Participated in One-Day National Level Workshop on 'Various Aspects of Research Funding, Academic Writing and Publication Ethics' organised by Research Cell, Shivaji College (University of Delhi), New Delhi, India held on January 30, 2021.
97. Participated in the International Conference entitled "Microbial World: Recent Developments in Health, Agriculture and Environmental Sciences" organized in collaboration with The Association of Microbiologists of India (AMI), Indian Network for Soil Contamination Research (INSCR), The Energy and Resources Institute (TERI), University of Delhi (DU), Indian Agricultural Research Institute (IARI) & Indian National Science Academy (INSA) from February 3-5, 2021.
98. Participated in the Online Workshop (equivalent to Faculty Development Program) on Intellectual Property Right organized by Internal Quality Assurance Cell of Deen Dayal Upadhyaya College, University of Delhi under the aegis of DBT Star College Program and MoE-Institution Innovation Council DDU Chapter from February 8-13, 2021 (1.5 Hr session per day during 02:30 pm - 04:30 pm).
99. Participated as **Member of organizing committee** for the inter college LABORATORY SKILL TRAINING PROGRAMME at the session III titled "Museum Keeping: Animal Specimen Maintenance" for Laboratory Assistants/Attendants in the Chemical and Life Science Laboratories under DBT Star College Scheme, from 8th–15th February, 2021, held at Department of Zoology, Shivaji College, University of Delhi, New Delhi.
100. Participated as **Resource person** for the inter college LABORATORY SKILL TRAINING PROGRAMME at the session III titled "Museum Keeping: Animal Specimen Maintenance" for Laboratory Assistants/Attendants in the Chemical and Life Science Laboratories under DBT Star College Scheme, from 8th–15th February, 2021, held at, Department of Zoology, Shivaji College, University of Delhi, New Delhi.
101. Participated as **Member of organizing committee** for the webinar "How to Read Scientific Literature & Introduction to MANAV-The Human Atlas Initiative" held under the DBT Star College Scheme on 24th February, 2022 at 11.00 am on Zoom platform.
102. Participated as **Member of organizing committee** for the workshop for School Teachers in Biological and Chemical Sciences at the session III titled "Chick Egg Windowing" under DBT Star College Scheme, from 22nd –26th March, 2021, held at, Department of Zoology, Shivaji College, University of Delhi, New Delhi.
103. Participated as **Resource person for the workshop** for School Teachers in Biological and Chemical Sciences at the session III titled "Chick Egg Windowing" under DBT Star College

Scheme, from 22nd –26th March, 2021, held at, Department of Zoology, Shivaji College, University of Delhi, New Delhi.

104. Participated as **Member of organizing committee** for the Two-Week Online Summer Internship Training entitled “Current Diagnostic & Therapeutic Modalities for COVID-19” held under the DBT Star College Scheme, from 28th June- 10th July, 2021 on Zoom platform.
105. Participated as **Resource Person** for the Two-Week Online Summer Internship Training entitled “Current Diagnostic & Therapeutic Modalities for COVID-19” held under the DBT Star College Scheme, from 28th June- 10th July, 2021 on Zoom platform.
106. Participated in the virtual talk on “*in-vitro* Fertilization” organized by Deshbandhu College University of Delhi, New Delhi, held on July 21, 2021.
107. Participated as **Member of organizing committee** for the intra college LABORATORY SKILL TRAINING PROGRAMME at the session III titled “Museum Upkeep and Maintenance” for Laboratory Assistants/Attendants in the Chemical and Life Science Laboratories under DBT Star College Scheme, from 11th –17th August 2021, held at, Department of Zoology, Shivaji College, University of Delhi, New Delhi.
108. Participated as **Resource** for the intra college LABORATORY SKILL TRAINING PROGRAMME at the session III titled “Museum Upkeep and Maintenance” for Laboratory Assistants/Attendants in the Chemical and Life Science Laboratories under DBT Star College Scheme, from 11th –17th August 2021, held at, Department of Zoology, Shivaji College, University of Delhi, New Delhi.

Research Guidance (Supervision of Doctoral Thesis/Dissertations)

NA

Awards and Distinctions

1. Awarded **Certificate of Merit** for securing first position in UDSC in graduation first year, by Sri Ventakeswara College, University of Delhi, India.
2. Awarded **Science Meritorious Award** (Rs. 800 for the purchase of books) for securing first position in UDSC in graduation first year, by Sri Ventakeswara College, University of Delhi, India.
3. Awarded **Certificate of Merit and Medal** for securing first position in South Campus in graduation, by Sri Ventakeswara College, University of Delhi, India.
4. Awarded **Certificate of Merit and Balaji Gold Medal** for securing first position in South Campus in graduation, by Sri Ventakeswara College, University of Delhi, India.

5. Awarded **Certificate of Merit and Dr. O. B. Tandon Memorial Gold Medal** for securing first position in South Campus in graduation, by Sri Ventakeswara College, University of Delhi, India.
6. Awarded **Certificate of Merit and Mrs. P. Gupta Meritorious Medal** for securing first position in South Campus in graduation, by Sri Ventakeswara College, University of Delhi, India.
7. Awarded **Certificate of Merit and Balaji Merit Medal** for securing first position in South Campus in graduation, by Sri Ventakeswara College, University of Delhi, India.
8. Awarded **Certificate of Merit and Bharatula Savitri Memorial Cash prize** for securing first position in South Campus in graduation, by Sri Ventakeswara College, University of Delhi, India.
9. Awarded **Certificate of Merit** for securing first position in Hans Raj College and first position in the University of Delhi, India, in post-graduation (Previous/First year).
10. Awarded **Science Meritorious Award** (Rs. 800 for the purchase of books) for securing first position in Hans Raj College and first position in the University of Delhi, India, in post-graduation (Previous/First year).
11. Awarded **Certificate of Merit** for securing first position in Hans Raj College and first position in the University of Delhi, India, in post graduation (Final year).
12. Awarded **Certificate of Merit and Hans Raj College Gold Medal** for standing first in the University of Delhi, India, in post-graduation.
13. Awarded **Science Meritorious Award** (Rs. 800 for the purchase of books) for securing first position in Hans Raj College and first position in the University of Delhi, India, in post-graduation (Final year).
14. Awarded **Junior Research Fellowship** of Council of Scientific and Industrial Research (CSIR), Government of India, July 2008.
15. Qualified **Junior Research Fellowship** by Indian Council of Medical Research (ICMR), Government of India for Junior Research Fellowship, July 2008.
16. Awarded **Senior Research Fellowship** of Council of Scientific and Industrial Research (CSIR), Government of India (January-2011 to January-2013).

Memberships

1. Member, American Society for Microbiology (ASM) -in the past
2. Member, Association of Microbiologists of India (AMI)-in the past
3. Member, Indian Network for Soil Contamination Research (INSCR)-Current member Life time

Other Academic Activities

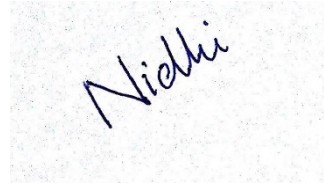
Overseas Work Experience:

Worked as a trainee for four months in the laboratory of Dr. Hans Peter Kohler, Dr. Birgit Geueke & Dr. Thomas Poiger (June–September, 2011) at Eawag (UMIK, Swiss Federal Institute of Aquatic Science and Technology), Department of Environmental Microbiology, CH-8600, Dubendorf, Switzerland & Research station Agroscope Changins-Wadenswil, Plant Protection Chemistry, Switzerland in the project entitled “Environmental Risk and Bioremediation of Hexachlorocyclohexane Isomers” under the “Indo Swiss Collaboration in Biotechnology (ISCB)”

Academic Counselor, Indira Gandhi National Open University (IGNOU), 38045 Shivaji College, University of Delhi for Programme BSCG for the Courses BZYCT-131 and BZYCT-133. Academic counselor code: AKLPG3556G/001.

Cultural/Extracurricular Activities

1. Awarded **first prize** for Inter House Collage Competition Seniors in Class XI, by Holy Child Auxilium School, New Delhi, India.
2. Awarded **second prize** for Poetry Writing Competition Seniors, English in Class XI, by Holy Child Auxilium School, New Delhi, India.
3. Has worked as one of the editors of the annual school magazine in Class XI in Holy Child Auxilium School, New Delhi, India.
4. Awarded **first prize** for S.U.P.W. (Commercial Art) in Class XII, by Holy Child Auxilium School, New Delhi, India.
5. Awarded **Certificate of Merit** for securing first position in Quiz–Zoological Society Festival in graduation first year, by Sri Ventakeswara College, University of Delhi, India.
6. Awarded **Certificate of Merit** for active participation as Joint-Secretary of Zoological Society in graduation second year, by Sri Ventakeswara College, University of Delhi, India.
7. Awarded **Certificate of Merit** for active participation as Secretary of Zoological Society in graduation third year, by Sri Ventakeswara College, University of Delhi, India.
8. Awarded **first prize** for Collage Making Competition, by Sri Ventakeswara College, University of Delhi, India.
9. Awarded **second prize** for Extempore Competition, by Sri Ventakeswara College, University of Delhi, India.
10. Has done the anchoring at the 49th Annual Conference of The Association of Microbiologists of India entitled “International Symposium on Microbial Biotechnology: Diversity, Genomics & Metagenomics” from 18-20th November, 2008 at University of Delhi, Delhi, India.
11. Has worked as one of the editors of the annual college magazine in 2012, in Deen Dayal Upadhyay College, University of Delhi, Delhi.
12. Has done the anchoring at the National Symposium entitled "Reproductive Health in India: Concerns and Awareness" held on from 12th February, 2016 at Deshbandhu College, University of Delhi, New Delhi, India.



Signature of Faculty Member