



Faculty Profile: Dr. Sunila
Department of Microbiology
Ram Lal Anand College, University of Delhi



Title	Dr.	First Name	Sunila	Last Name	Photograph
Designation	Assistant Professor				
Address	Department of Microbiology, Ram Lal Anand College, University of Delhi, 5, Benito Juarez Road, Dhaula Kuan, New Delhi-110021				
Phone Office					
Mobile					
Email	Sunilahooda@gmail.com , sunilahooda.micro@rla.du.ac.in				
Institutional Web page	https://rlacollege.edu.in/pdf-profile/microbiology/Microbiology_Sunila_Profile.pdf				
Google Scholar	https://scholar.google.com/citations?hl=en&user=SyAQ-4gAAAAJ				
Research Gate	https://www.researchgate.net/profile/Sunila-Hooda				
ORCID ID	ORCID ID:0000-0002-8768-8367				
Scopus ID	57204089696				
Vidwan ID	394453				
Educational Qualifications					
Degree	Institution			Year	
BSc	MDU, Rohtak			1997-2000	
MSc (Microbiology)	Kurukshetra University			2000-2002	
PhD (Biotechnology)	Guru Gobind Singh Indraprastha University, New Delhi			2004-2011	
Career Profile					

- **Assistant Professor (Level 11)** Department of Microbiology, Ram Lal Anand College since 11th April 2023
- **Assistant Professor (ad-hoc)**, Department of Microbiology, Ram Lal Anand College since Jan 2016 till 10th April 2023
- **Principal Investigator Project, (DBT-BioCARE)**, School of Biotechnology, GGS Indraprastha University, New Delhi from Nov 2012- Jan 2016
- **Research Associate**, School of Biotechnology, GGS Indraprastha University, New Delhi from Sep 2010 – Oct 2012

Administrative Assignments

Current:

Convener, Mikrobiologika (2024-25)

Co-convener, criterion 6, NAAC Cycle II Steering Committee

Co-convener, Function Committee (2024-25)

Co-convener Yoga and Meditation Society (2024-25)

Member, Prospectus and Annual Report Committee (2024-25)

Internal auditor ISO Committee (2023-24), Conducted Pre-audit of all the departments and committees of the college for ISO 210001: 2018

Previous:

Co-convener, Prospectus Committee (2023-24; 2022-23)

Convener, Mikrobiologika (2022-23)

Convener, Yoga and Meditation Society (2020-21)

Co-convener, Function Committee (2022-23)

Co-convener Yoga and Meditation Society (2022-23)

Member, Advisory Committee, DBT-Star College Scheme- RLA College

In addition, Member of various committees including Counseling and Placement Cell, Functions

Committee, Alumni Committee, Women Welfare Advisory Committee, Debate and Quiz Society for the last eight years

Areas of Interest / Specialization

Plastic biodegradation, Metagenomics, Microbiome, functional genomics, Cyanobacteria, Nutrient limitation and response

Subjects Taught

Bioinformatics, Molecular Biology, Bacteriology, Biosafety and Intellectual Property Rights, Instrumentation and Bio-techniques, Scientific Writing and Communications, Yoga Philosophy and Practice

Research Guidance

- **Co-Supervisor, M. tech thesis** on “In-vivo and in-vitro interaction studies of NtcB and PII in *Arthrospira platensis* PCC 7345” submitted by Sunaina Verma, GGS Indraprastha University, Delhi
- Guided 8 students under DBT Star College Summer project “To perform genome sequence analysis for heavy metal resistance genes of bacteria by using bioinformatics tools” (1 June to 31st July 2020)
- Guided 11 students under the project “Isolation and screening of plastic degrading bacteria from soils collected from different landfill sites of Delhi”, CRG Project 2020-22
- Co-Supervised JRF in ICMR Funded Project: Ms. Shashi Prabha Kumari
- Guiding 7 students in CRG-2 project (2023-24)

Publications Profile

Papers:

- Kumari, S. P., Podia, M., Hooda, S., Diwan, P., & Gupta, R. K. (2024). An efficient method for isolating bacterial DNA from bioaerosols for metagenomics. *Aerosol Science and Technology*, 1-13. <https://doi.org/10.1080/02786826.2024.2410037>
- Yadav, P., Kumari, SP, Hooda, S., Gupta, R.K. and Prerna Diwan (2024). Comparative assessment of microbiome and resistome of influent and effluent of sewage treatment plant and common effluent treatment plant located in Delhi, India using shotgun approach. *Journal of Environmental Management*, 369, <https://doi.org/10.1016/j.jenvman.2024.122342>

- **Hooda, S.**, Malik, G., Saini, P., Grewall, A., & Pandey, V. C. (2023). Cyanobacteria as a potential bioasset for restoring degraded land. *Land Degradation & Development*, 1– 16. <https://doi.org/10.1002/ldr.4711>
 - Bahuguna, M, **Hooda, S.**, Mohan L, Gupta RK, Diwan P. (2023) Identifying oral microbiome alterations in adult betel quid chewing population of Delhi, India. *PLOS ONE* 18(1): e0278221. <https://doi.org/10.1371/journal.pone.0278221>
 - Saini, P., Grewall, A. **Hooda, S.** (2022). In silico approach for identification of polyethylene terephthalate hydrolase (PETase)-like enzymes. *Bioremediation Journal*, <https://doi.org/10.1080/10889868.2022.2054931>
 - Moring, A, **Hooda, S.**, Raghuram, N., Adhya, T.K. et al (2021). Nitrogen challenges and opportunities for agricultural and environmental science in India. *Frontiers in Sustainable Food Systems*, 5, 505347. doi: 10.3389/fsufs.2021.505347
 - **Lochab, S.**, Kumar, P.A. and Raghuram N. (2014). Molecular characterization of nitrate uptake and assimilatory pathway in *Arthrospira platensis* reveals nitrate induction and differential regulation. *Arch. Microbiol.* DOI 10.1007/s00203-014-0973-3.
 - Pathak, R.R and **Lochab, S.** (2010). A method for rapid isolation of total RNA of high purity and yield from *Arthrospira platensis*. *Canadian J. of Microbiol.* 56(7): 578-584.
 - **Lochab, S.**, Oberoi, H.S., Gothwal, M., Abbey, D. and Raghuram N. (2009). Nitrate assimilatory enzymes are more thermotolerant in *Spirulina (Arthrospira) platensis* than rice. *Physiol Mol Biol Plants* 15 (3): 277-280.
- Pathak, R.R., Ahmad, A., **Lochab, S.** and Raghuram, N. (2008). Molecular physiology of plant N-use efficiency and biotechnological options for its enhancement. *Curr. Sci.* 94 (11): 1394-1403

Chapters in books and e-chapters (Published)

- Podia, M. Yadav, P., **Hooda, S.**, Diwan, P. and Gupta, RK. (2023). Microbial Weathering of Rocks in Natural Habitat: Genetic Basis and Omics-Based Exploration, In: *Weathering and Erosion Processes in the Natural Environment*, Editor(s): Virendra Bahadur Singh, Sugosh Madhav, Naresh Chandra Pant, Ravi Shekhar, pp:265-302, ISBN: 978-1-394-15733-41, 4 John Wiley & Sons Ltd.
- **Hooda S.**, George AJ, Sharma V, Gupta V. (2023) Mycotoxins: Detection Methods and Strategies for Management, In: *Fungal Resources for Sustainable Economy*, Editor: Singh I, Chapter 19, pp:509-530, Springer International DOI: <https://doi.org/10.1007/978-981-19-9103-5>. ISBN 978-981-19-9105-9
- Khurana, R., Maurya, M., Swami, S., **Hooda, S.** (2022). Anticancer Compounds from Selected Medicinal Plants: An update, In: *Medicinal Plants: Ethnomedicine, Pharmacognosy and Therapeutic Values*, Editor(s): (Amita Sharma, Garima Malik, Sanyogita Kumar, pp: 182-205, ISBN: 978-93-90879-31-1, Anu Books, India., DOI: <https://doi.org/10.31995/Book.AB220-A22>.

- Malik, G., Hooda, S., Majeed, S., Pandey, VC (2022). Understanding assisted phytoremediation: Potential tools to enhance plant performance, In: Assisted Phytoremediation, Editor(s): Vimal Pandey, Elsevier, 2022, Pages 1-24, ISBN 9780128228937, <https://doi.org/10.1016/B978-0-12-822893-7.00015-X>
- Malik, G., Chugh, S., Hooda, S., Chaturvedi, R. (2022). Plant Growth Promoting Rhizobacteria (PGPR)-Assisted Phytoremediation of Contaminated Soils. In: Singh, A.K., Tripathi, V., Shukla, A.K., Kumar, P. (eds) Bacterial Endophytes for Sustainable Agriculture and Environmental Management. Springer, Singapore. Pp71-93, Print ISBN: 978-981-16-4496-2, Online ISBN: 978-981-16-4497-9 https://doi.org/10.1007/978-981-16-4497-9_4
- Malik, G., Chaturvedi, R., Hooda, S. (2021). Role of herbivore-associated molecular patterns (hamps) in modulating plant defenses. In: Singh I.K., Singh A. (eds) Plant-Pest Interactions: From molecular mechanisms to chemical ecology. Springer, Singapore. ISBN (978-981-15-2466-0), Online ISBN (978-981-15-2467-7). https://doi.org/10.1007/978-981-15-2467-7_1
- Malik G., Singh N., Hooda S. (2020). Nitrogen Stress in Plants and the Role of Phytomicrobiome. In: Kumar M., Kumar V., Prasad R. (eds) Phyto-Microbiome in Stress Regulation. Environmental and Microbial Biotechnology, Springer, Singapore Print ISBN:978-981-15-2575-9, Online ISBN:978-981-15-2576-6
- Sutton, M. A., Drewer, J., Moring, A., Adhya, T., Ahmad A., Bhatia, A., Brownlie, W., Dragosits, U., Ghude, S. D., Hillier, J., Hooda, S., ... and Raghuram, N. (2018). The Indian nitrogen challenge in a global perspective. In: The Indian Nitrogen Assessment: Sources of Reactive Nitrogen, Environmental and Climate Effects, Management Options, and Policies.: Abrol, Y. P., Adhya, T. K., Aneja, V. P., Raghuram, N., Pathak, H., Kulshrestha, U., Sharma, C. and Singh, B. (Eds) Elsevier, UK. ISBN: 978-0-12-811836-8. Pp. 9-28
- Pathak, R.R., Lochab, S. and Raghuram N (2011). Improving nitrogen use efficiency. In: Comprehensive Biotechnology 2nd Edition Vol 4, pp.209-218, Elsevier, Oxford. ISBN: 978-0-08-088504-9
- Lochab, S., Ali, A. Jha, P., Sharma, V., Abbey, D. and Raghuram, N. (2010). Assay methods for nitrate assimilatory enzymes in *Spirulina (Arthrospira)*. In Protocols in Algal Research, Bagchi, S.N. Mohanty, P. and Kleinber, D. (Eds). Narosa, pp.179-189. ISBN: 978-81-8487-059-6.
- Lochab, S., Pathak, R. R. and Raghuram, N. (2007). Molecular approaches for enhancement of nitrogen use efficiency in plants. In Agricultural Nitrogen use & its Environmental Implications, Y.P. Abrol, N. Raghuram and M.S. Sachdev (Eds). IK International, Delhi. Pp. 327-350. ISBN: 978-81-89866-33-4
- Sequence submissions in GenBank (NCBI): 16

Conference Organization/ Presentations

Events Organized:

Invited Talks, Resource person, invited Chairperson, Conference Paper presentations (Oral):

- Resource Person, “one-week Hands-on workshop on Basic Techniques in Microbiology jointly organized by Ram Lal Anand College, Centre for Innovation in Infectious Disease Research, Education and training (CIIDRET) & Delhi School for Skill Enhancement & Entrepreneurship Development (IoE- DSSEED), University of Delhi”, 17th December 2022-23rd December 2022
Title of the talks: 1) Sterilization techniques ii) Instruments used in Microbiology laboratory
- Resource Person, “Referencing using EndNote & Mendeley” in the certificate course on ‘Scientific writing & Research Ethics’ organised by Ram Lal Anand College, University of Delhi, on 24th July 2020 .
- Resource person, International Conference on “Changing Environment: Understanding the Emerging Challenges and their Management Strategies” 10th-12th April, 2019 Conference Centre, North Campus, University Enclave, Organized by Kalindi College, University of Delhi.
Title of the talk “The Arthrospira model of nitrogen stress: signals from metabolism”
- Resource person, Ist - DBT BioCARE Conclave: Women Scientists achieving greater heights” from 8th-9th March 2019 NIPGR, New Delhi.
Title of the talk “Molecular characterization of nitrate assimilation and protein productivity”
- Resource person, 5 Days INSET program for Eco club In charge Teachers, SCERT New Delhi, 26th-27th July 2013.
- Resource person, 5 Days INSET program for Eco club In charge Teachers, SCERT New Delhi, 11-13th October 2012.

Presentations: International

- Kumari S. P., Podia, M., **Hooda, S.** Diwan, P. and Gupta R.K. (2023). A strategy for efficient air sampling and metagenomic DNA extraction in 63rd Annual International Conference of Association of Microbiologists of India (AMI) “Microbial technologies for sustainable biosphere” held from 2nd to 4th February 2023 at Rohtak, India
- Podia, M., **Hooda, S.** Diwan, P. and Gupta R.K. (2023). Mapping of air microbiome in OPDs of government hospitals through metagenomics approach: A special emphasis to resistance in 63rd Annual International Conference of Association of Microbiologists of India (AMI) “Microbial technologies for sustainable biosphere” held from 2nd to 4th February 2023 at Rohtak, India
- Yadav P., **Hooda, S.**, Gupta R.K. and Diwan, P. (2023). Whole metagenome sequencing based analysis of water from urban STP to assess community characteristics and resistance gene repertoire in 63rd Annual International Conference of Association of Microbiologists of India (AMI) “Microbial technologies for sustainable biosphere” held from 2nd to 4th February, 2023 at Rohtak, India
- Saini, P. Grewall, A. and **Hooda, S.** (2021). *In Silico* approach for identification of potential plastic degrading bacteria, International Conference “The World Microbe Forum 2021” organized online by ASM and FEMS from 20-24 June 2021.
- **Hooda, S.**, Raghuram, N. (2018). Prospects of developing *Arthrospira (Spirulina) platensis* as a bioremediation tool for potable water sources. National Conference on “Strategies to Mitigate the Effects of

Climate Change: Steps Towards Sustainable Development” 8-9 December, 2017 at Maharaja Agrasen University, Baddi, District Solan, H.P.

- Sharma S, Akanksha, Joshi M, Chopra U, Sharma A, Barik V, Mehta S, Jyoti N, Rashmi, Sharma SK, Gupta V, **Hooda S** and Gupta RK. Occurrence of carbapenem and multidrug resistant Gram positive bacteria in air of overcrowded subway metro stations in Delhi, India. 57th Annual Conference and International Symposium of Association of Microbiologists of India, Guwahati, Assam, 24-27 November 2016.
- Sharma S, Akanksha, Joshi M, Chopra U, Sharma A, Barik V, Mehta S, Jyoti N, Rashmi, Sharma SK, Gupta V, **Hooda S** and Gupta RK. Dissemination of antimicrobial resistance among aeromicroflora of Delhi environment: a serious public health implication. International Conference on Strategies for Environmental Protection and Management (ICSEPM-2016), JNU, New Delhi, 11-13 December, 2016.
- **Lochab, S.**, Angmo, S., Singh N., Mishra, S. and Raghuram, N. (2015). Understanding the role of PII protein in *Arthrosira platensis* PCC 7345. 6th Congress of European Microbiologists, FEMS 2015, 7th-11th June 2015 in Maastricht, Netherlands.

Refresher course/Orientation/ Professional Course/ NPTEL course attended:

- 2-week online NEP Orientation & Sensitization Programme held from 19th December 2023 – 29th December 2023 under Malaviya Mission Teacher Training Programme (MM-TTP) of University Grants Commission (UGC) Organized by Centre for Professional Development in Higher Education (UGC-MMTTC), University of Delhi
- Attended the Inaugural Ceremony of Faculty Induction Programme "NEP2020: Pedagogical Imperatives of Higher Education" on 1 December' 2023 in Sports Complex, University of Delhi.
- 4-Week Faculty Induction/Orientation Programme for “Faculty in Universities/Colleges/Institutes of Higher Education” from 23 April – 22 May, 2023 with Grade A+.
- Completed certificate course on "Internal Auditor Training Program on ISO 21001:2018" from 17th April 2023 to 18th April 2023 by Centre of Assessments for Excellence (COAE) International, Certificate no: EOMS-IA-OS/274
- Certificate Course on “Bioinformatics Methods I”, 8 weeks, 27th May 2020, University of Toronto, Canada on Coursera
- Certificate Course on Bioinformatics Methods II, 4 weeks, 18th June 2020, an online non-credit course authorized by University of Toronto, Coursera
- Certificate Course on Plant Bioinformatics, 6 weeks, July 13, 2020, an online non-credit course authorized by University of Toronto, Coursera
- Certificate Course on Antimicrobial resistance - theory and methods, 5 weeks, 11th July 2020, an online non-credit course authorized by Technical University of Denmark (DTU), Coursera
- Certificate Course on Biohacking Your Brain's Health, 4 weeks, August 3, 2020 an online non-credit course authorized by Emory University, Coursera
- Certificate Course on “Whole genome sequencing of bacterial genomes tools and applications” 5 weeks, 24 May 2020, Offered by Technical University of Denmark on Coursera
- NPTEL online certification on Biomedical Nanotechnology, 4 weeks (Aug-Sep 2019), NPTEL

- NPTEL Mentor certificate, Computer aided drug design, July-Dec 2019 NPTEL SWAYAM
- Certificate course on “Emerging respiratory viruses, including COVID-19: Methods for detection, prevention, response and control”, April 20, 2020, Open WHO
- Certificate course on “Presentation Skills: Designing Presentation Slides”, 4 weeks, 15th May 2020, offered by National Research Tomsk State University, Russia on Coursera
- Certificate Course on “Severe Acute Respiratory Infection (SARI) Treatment Facility Design”, 21st April 2020, Open WHO

Conference/Seminars/webinars/events organized (last five years)

- Organized Symposium on “Role of probiotics in neonatal and child health” for the North Zone on the 12th April 2023 in association with Probiotics Association of India (PAI)
- Convener, Annual department fest Mikrovitae’23 organized on 12th and 13th of April 2023 by Mikrobiologika, the Department of Microbiology, Ram Lal Anand College
- Coordinator, webinar on “Be cancer Aware” on 22nd March 2021, Mikrobiologika, Department of Microbiology, Ram Lal Anand College in association with Rajiv Gandhi Cancer Institute and Research Centre.
- MIKROVITAE 2021 (online), the annual department fest of Mikrobiologika, on 3rd April 2021, Ram Lal Anand College, University of Delhi, New Delhi 110021
- ONLINE YOGA SESSION was organised on 21st June 2021 (7:30 am- 8:45 am) on 7th International Yoga Day.
- Convener, Interdepartmental Online Yoga Competition, 20-21st June 2021
- 40 hours online certificate course on "Python in Biological Sciences" 16th January 2021 to 11th April 2021, Ram Lal Anand College, University of Delhi,
- 4 weeks online certificate course for students entitled “Scientific writing and Research Ethics” 13th July 2020 to 7th August 2020, Ram Lal Anand College, University of Delhi.
- Co-coordinator Live asana and Quiz Competition in association with Shri Yog Pragati & State Yoga Sports Association, Delhi 25-28th June 2020
- Online Yoga session on 21st June 2020, 8:00 am- 9:00 am on the occasion of 6th International Yoga Day.
- Member, Organizing Committee, International Seminar on “Nanoparticles in Biology” 29th Jan, 2020 at Ram Lal Anand College, University of Delhi, New Delhi.
- Member, Organizing Committee: One Day National Seminar on “Meta-genomics and Genome Editing’ 5th February 2020 organized under Department of Microbiology, Ram Lal Anand College
- Member, Organizing Committee: Microvitae (Festival of Department of Microbiology) 4th February 2020, with keynote lecture on “Synthetic Biology: from concept to applications”, Ram Lal Anand College.
- Member, Coordinating Committee, Training Program on “ICT tools for Beginners” organized by Ram Lal Anand College on 18-19 January 2019.
- Judge for Oral Presentations, International Conference on “Changing Environment: Understanding the Emerging Challenges and their Management Strategies” 10-12 April, 2019, Conference Centre, North Campus, University Enclave, Organized by Kalindi College, University of Delhi
- Member, Organizing Committee, National Seminar on “Probiotics: Ameliorating The Burden of Lifestyle Disorders” organized by Department of Microbiology, Ram Lal Anand College in association with Probiotic Association of India on 1st Feb 2019.

- Co-presenter and Volunteer, International Conference on “Challenges and opportunities for agricultural nitrogen science in India” at NASC Complex, Pusa, New Delhi from 3-5 October, 2017
Title of the talk- Investigating the phenotype and genotype for N-response and NUE in rice
- Member, Organizing Committee, International Seminar on “Infectious Diseases: Current Strategies for Diagnosis and Therapy”, organized at Ram Lal Anand College, New Delhi, 2 Feb 2018

Conference/Seminars/webinars/events Attended (last five years)

- Attended 9th International Nitrogen Conference (N2024) from February 5-8, 2024, at Guru Gobind Singh Indraprastha University, New Delhi
- Attended, 63rd Annual AMI Conference titled" Microbial Technologies for sustainable Biosphere MICROBIO Tech-2023 organized by Association of Microbiologists (AMI) India at MDU Rohtak, Haryana from 2-4 Feb 2023
- Attended online 13th INDIA PROBIOTIC SYMPOSIUM" Science based evidence on the benefits of probiotics for Human Health organized by Gut Microbiota and Probiotic Science Foundation (India), New Delhi from 25th -26th March 2023
- 12th India Probiotic Symposium entitled "Good Microbiome, Probiotics and Good Health- The Evidence Gets Stronger" organized by the Gut Microbiota and Probiotic Science Foundation (India), on 5th & 6th March 2022
- Attended, Antimicrobial Chemotherapy conference 2023 ONLINE from 2-3 Feb 2022, Organized by British Society for antimicrobial Chemotherapy, UK.
- Attended, Antimicrobial Chemotherapy conference 2021 ONLINE from 2-3 Feb 2021, Organized by British Society for antimicrobial Chemotherapy, UK.
- Attended International Webinar, Antimicrobial Surveillance and consumption data – how, what and why to measure to provide meaningful data, 17th Sep 2020, organized by British Society for Antimicrobial Chemotherapy, UK.
- Attended FEMS webinar on Vaccines in the time of COVID 19 10th Mach 2021, International.
- FEMS Yeast Research Webinar on Genomic Insights into Yeast Diversity and Evolution" Jan 28, 2021, International Webinar
- Attended, Coronavirus Virtual Event Series on 17th Sep 2020 Labroots Inc, US, International Conference
- Attended, virtual “11th India Probiotic Symposium” – Role of gut microbiota and probiotics in reducing viral infections –mechanisms to combat them from 13th & 14th March 2021, PAI (International)
- Attended Two day National Conference entitled “Self-reliant India: A Gandhian Perspective” from 28th -29th September, 2020 organised by Gandhi study circle and Gujarat Vidhyapeeth, Deemed University, Ahmedabad
- Attended Webinar Series 2020, Natural Molecules Against SARS-CoV-2: A Molecular Modelling Study’ July 7, 2020 organized by the Department of Microbiology, BCAS, DU

- Attended Webinar series “Igniting through Science”, 28th April-3rd May 2020, Department of Microbiology, IHE, DU.
- Attended, Two days Interactive webinar covering Lifestyle, weight management, Nutrition and Immunity from 23rd -24th June, 2020 jointly organised by Department of Physical Education and IQAC, Ram Lal Anand College, University of Delhi.
- Attended, International Webinar on Impact of COVID-19 on Society and Education: a perspective 20th June 2020 organized by SSN college, DU
- Attended, International Summit on Women in STEM-'Visualizing the Future: New Skylines (Summit ISW-2020)", January 23-24, 2020 organized by DBT & ICGEB at India Habitat Centre, Lodhi Road, Delhi.
- Attended, National Conference on “Wellness India and Krishi India Expo 2018” at Pragati Maidan, New Delhi on 20-22 August, 2018.
- Attended, International Conference “4th Smart Cities India 2018 and Expo” organized at Pragati Maidan, New Delhi 23-25 May 2018
- Attended, Wellness India conference and Exhibition, 2017 at Pragati Maidan, New Delhi from 29-31 Aug 2017.

FDP/ workshops organized (last five years)

- Coordinator, Hands on training workshop on “Metagenomics Sequencing and Analysis: 16S and WGS” organized by IQAC, RLA college and Mikrobiologika, Department of Microbiology, RLA college with Biokart India Ltd. on 10th October 2023
- 2-month Yoga workshop “Holistic Harmony” at Ram Lal Anand College from 3 October 2023 to 8 December 2023 as Co-convener, Yoga and Meditation society
- Yes+ Youth Empowerment and Skills Workshop at Ram Lal Anand College from 30 October 2023 to 3 November 2023 in association with Art of Living as Co-convener, Yoga and Meditation society.
- Coordinator for an Outreach workshop Under DBT Star College Scheme titled “How microorganisms look, grow and replicate” organized by the Department of Microbiology, Ram Lal Anand College on 2nd November 2022 for students of class XI and XII, DLDAV Public School, RK Puram
- Coordinator for an Outreach workshop Under DBT Star College Scheme titled” How microorganisms look, grow and replicate” organized by the Department of Microbiology, Ram Lal Anand College on for students of class X1 and X11, Ramjas International School, RK Puram
- Member organizing team for an Outreach workshop Under DBT Star College Scheme titled” Journey To The Microbial Realm” organized by the Department of Microbiology, Ram Lal Anand College on 11th October, 2022 for students of class VIII at Apeejay School Panchsheel Park,
- Coordinator, Hands-on Summer Training under DBT star college scheme on “Exploring and Identifying Microbial diversity” organized by the Department of Microbiology, Ram Lal Anand College from 13th July 2022- 17th July 2022.
- Convener, 2 days National Workshop on "Holistic Fitness - Boost your immunity and prevent illness" , 23-24th June 2021 (2:00-4:00 pm, Zoom) by Yoga and Meditation society in collaboration with the Department of Physical Education, RLA College.
- Coordinator, One Month Online Yoga Workshop (zoom) from 1st- 30th June 2021 by Yoga and Meditation Society, RLAC.

- Coordinator, 2 days DBT Sponsored National Workshop on MOLECULAR DOCKING IN DRUG DESIGN from 31st March to 1st April 2021, organized by Department of Microbiology, Ram Lal Anand College under DBT -Star College Scheme.
- Member, Organizing Committee, Online Faculty Development Program on Biosafety, Bioethics and IPR, 1 week (24-28 August 2020), organised by Department of Microbiology, Ram Lal Anand College, University of Delhi.
- Resource person on 24th July 2020 titled “Referencing using EndNote & Mendeley” in the certificate course on ‘Scientific writing & Research Ethics’” organised by Ram Lal Anand College, University of Delhi.
- Member, Organising team, Certificate course on ‘Python in Biological Sciences’ organised by Ram Lal Anand College, University of Delhi.
- Coordinator, One Month Online Yoga Workshop from 1st- 30th June 2020 by Yoga and Meditation Society, RLAC in association with Shri Yog Pragati.
- Co-Organizer Workshop on “International Yoga Day 2019” 3-day 19-21st June 2019, RLA College
- Member, Organizing Committee, Workshop on “International Yoga Day 2018” 3-day 19-21st June 2018, RLA College
- Member, Organizing Committee, Workshop on “International Yoga Day 2017” 3-day 19-21st June 2017 RLA College

FDP/ workshops Attended (last five years)

- Completed One-Week National Faculty Development Program on “Essential Skill in Genomics” jointly organized by Ram Lal Anand College (Department of Microbiology); Centre for Innovation in Infectious Disease Research, Education and Training (CIIDRET), University of Delhi, South Campus; Institution of Eminence-Delhi School of Skill Enhancement and Entrepreneurship Development (IOE-DSSEED); University of Delhi (Skill Enhancement Course Committee) and Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of Ministry of Education. One week from 4th August to 11th August 2023.
- Attended, Online Hands-on Workshop on Drug Discovery from July 4th to 12th 2023 organised by Zastra Innovations, Bangalore (International)
- Attended One-Day Workshop for Educators on "YOGA: PHILOSOPHY AND PRACTICE", A Value addition course (VAC) for Undergraduate Programme. Organized by Value Addition Courses Committee and Shri Vankateshwara College, University of Delhi on 22nd May 2023.
- Attended, 6 days of Online Hands-on Workshop on Next-Gen Drug Discovery Software for Lead Optimisation from April 9th to April 24th 2021 organised by Zastra Innovations, Bangalore (International)
- Attended National workshop titled “Bacterial Genome Identification, Sequencing And Characterization” on 20th April, 2022 (online), organized by Centre for Innovation in Infectious Disease Research, Education and Training (CIIDRET) and Delhi School of Skill Enhancement and Entrepreneurship Development (DSSEED-IOE), University of Delhi
- Attended, Online Workshop on Introduction to Systematic Reviews and Meta-Analysis in Health Research from 17th - 18th March 2021 by ICMR National Institute of Medical Statistics
- Attended Online Bioinformatics Workshop, 12 - 13 April, 2021, Department of Microbiology, Institute of Home Economics,

- Attended Online Faculty Development Program on ICT Tools for Effective Teaching Learning, 1 week (5-9 August 2020), organized by Media Production Centre in association with Internal Quality Assurance Cell (IQAC).
- FDP on Biomedical Nanotechnology, 4 weeks (Aug-Sep 2019) , NPTEL-AICTE
- Attended Workshop on “Stress Management Skills” 1 day, 22nd October 2019 organized by Centre for Human Values, Ethics and Life Skills, RLA College
- Attended FDP on “Quality assurance in HEIs: Reorienting Teaching-Learning Paradigm” organized by Ram Lal Anand College on 15-19 March 2019.
- Attended National Symposium & workshop “Yoga and Meditation for the holistic wellbeing” at Daulat Ram college, University of Delhi on 7 March 2019.
- Attended, FDP “Writing Research Proposals and Addressing IPR Related Issues” organized by Ram Lal Anand College on 29-30 March 2019
- Attended Workshop on Intellectual Property Rights (IPR) and Entrepreneurship : How to kick start your start-up” kick start your start-up”kick start your start-up” Organized at Ram Lal Anand College on 30th March 2019.

Internships Conducted:

2024-25: Satyam Shahi, Varsha Rai, Amrita Varshney, Disha Mendhe, Muskan (B.Sc Hons Microbiology, II year) on Scientific writing

2023-2024: Sakshi Verma (B.Sc Hons Microbiology, III year) on “Peroxidases in Plastic Degradation: Microbial Insights”

Research Projects (Major Grants/Research Collaboration)

- DBT funded research project on "**Molecular characterization of nitrate response and N metabolism in *A. platensis***" of 25.95 lakhs, (2012-2016), **PI**
- DBT- BBSRC UK funded research project on "**Newton-Bhabha Virtual Centre on Nitrogen Efficiency of Whole-cropping Systems for improved performance and resilience in agriculture (NEWS India-UK)**" as **Co-PI**, (2016-2018), 17 June 2016 – 16 Dec 2019
- **Resistome metagenomic profiling of bioaerosols in metro network in Delhi- NCR**, (Dr R K Gupta, **Dr Sunila (Co-PI)**, Dr Prerna Diwan), (2021-2024) **ICMR**, Government of India
- **Isolation and screening of plastic degrading bacteria from soils collected from different landfill sites of Delhi**, CRG Project **2020-22**
- **Exploring the plastic degradation potential of microbial consortium isolated from landfill sites in Delhi**, CRG project **2023-24**.

Awards and Distinctions
<ul style="list-style-type: none"> • DBT travel grant June 2015 (DBT/CTEP/02/201500409) • Awarded Bio-CARE fellowship (November 2012) • Assistant Editor of the Springer journal (Physiology and Molecular Biology of Plants) • CSIR RA /SRF extended from September 2010- October2012. • Qualified the CSIR/UGC-NET examination for the JRF in December 2002.
Association With Professional Bodies
<ul style="list-style-type: none"> • Assistant Editor, Springer journal (Physiology and Molecular Biology of Plants) since 2009 • Life Member, SCON (Society for conservation of Nature) • Life Member, AMI (Association of Microbiologists) • Life member, PAI (Probiotics Association of India) • Member, British Society for Antimicrobial Chemotherapy since 1 January 2021 • Life member, MSI
Other Activities