



Titl e	Professor	First Name	Prerna	Last Name	Diwan	Photograph
Designation		Professor in Microbiology & Coordinator, Internal Quality Assurance Cell (IQAC)				
Address		Department of Microbiology, Ram Lal Anand College, University of Delhi, 5, Benito Juarez Road, Dhaula Kuan New Delhi-110021				
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Email		Prernadiwan.mic@rla.du.ac.in; dr.pdiwan@gmail.com				
Educational Qualifications						
Degree		Institution				Year
PhD In Microbiology		Zinc tolerance in <i>Oscillatoria angustissima</i> and its biosorptive potential for removal of heavy metals from aqueous solutions” Department of Microbiology, University of Delhi, South Campus				1998
M.Sc. Life Sciences		School of Life Sciences, Jawahar Lal Nehru University, New Delhi				1992
B.Sc. (Hons.) Botany		Sri Venkateshwara College, University of Delhi				1990
Post- doctoral Research Experience						
- Faculty of Medicine, University of Alberta, Edmonton, Canada (2001-2004). - Microbial and Bioprocess Unit, Korea Research Institute of Biosciences and Biotechnology, (KRIBB), South Korea (2000-2001)						
Career Profile						
- Professor (2018 onwards), Department of Microbiology, Ram Lal Anand College, University of Delhi - Associate Professor (2009-2018), Department of Microbiology, Ram Lal Anand College, University of Delhi						

- Reader (2006-2009), Department of Microbiology, Ram Lal Anand College, University of Delhi
- Lecturer in Senior scale (2000-2005), Department of Microbiology, Ram Lal Anand College, University of Delhi
- Lecturer (1996-2000), Department of Microbiology, Ram Lal Anand College, University of Delhi

Additional Roles (Current)

- **Coordinator, Internal Quality Assurance Cell (IQAC):** *Took several quality initiatives in the college; Completed I cycle of NAAC, Prepared and Submitted Annual Quality Assurance Reports (AQRs), organized National/ International seminars/ /workshops/certificate courses for students and faculty. Organized FDPs/ Trainings for Faculty on online teaching tools, Outcome Based Education, Effective Teaching Learning, ICT trainings, administrative and technical trainings for non-teaching office and Laboratory staff.*
- **Member of Faculty of Interdisciplinary and Applied Sciences, University of Delhi**
- **Advisor Prospectus & Annual Report Committee:** *Developed College prospectus and annual reports.*

Completed Assignments

- **Member Committee of Courses:** Design and Development of Curriculum for Hons UG Programme in Microbiology, and design of modules for Add on/ certificate courses offered in college.
- **Bursar, 2020-2022:** Handled Financial disbursements of the college.
- **Coordinator, DBT Star College Scheme, 2019-2022:** Management of grant, organizing, seminars/conference/workshop/courses/student field visits/projects, Processing for purchase of equipment.
- **Coordinator, Centre for Entrepreneurship and Technology Development (E-cell):** contributed towards the process of nurturing the budding entrepreneurs in college, providing a platform for their startup ideas, through mentoring, incubation support, B-plan competitions, and trainings.
- **NSS Program Officer, 2016-2018:** led several awareness programs and drives including Ill effects of drug addiction (substance abuse), Electoral participation, Vittiya Saksharta Abhiyaan (promoting digital economy), Swatchhta, Beti Bachao Beti Padao, Tuberculosis Awareness Program, Water conservation, Spinal Cord and sports Injuries, donation drives, tree plantation drives, and Blood donation camp etc. Adopted nearby slum and led digital literacy and hygiene awareness programs in the slum.
- **Coordinator, Internal Assessment Monitoring Committee, 2016-2023:** coordinated the extensive task of college IA data Uploading, Submission, handling student grievances.
- **Co-Coordinator, NAAC Steering Committee:** Preparation of Self-Study Report (SSR for NAAC I cycle and uploading data to NAAC Portal; and preparation for NAAC Peer Team Visit
- **Convenor, Admission Committee (2015-16; 2022-23):** Handled the responsibility of entire admission process in the college.

- Convenor, Library Committee (2015-16; 2022-23):** Managing the library funds for purchase of books and other requirements.
- Co-Convenor- Functions Committee:** Organized Orientation programs for new students and parents and conducting Annual Prize Distribution Functions
- Convenor, Website Development Committee (2016-18):** Revamped the entire website of college; Coordination with service provider for all uploads.
- Member, Infrastructure and High-Powered Purchase Committee:** Involved in processes for college purchases recommendation and processes.
- Co-convenor/ Member, Fee Concession and Student Aid Fund Committee:** Developing modalities for grant of fee concession and student Aid Fund, scrutiny of student's applications and approvals.
- Member, Student's Award Committee:** Developing modalities/criteria and selection of Best Students of the year.
- Teacher-Incharge:** Handling academic and administrative processes in Department of Microbiology
- Coordinator,** Centralized Trials of students for UG admission, University of Delhi under quota for Extra-curricular activities in NSS category (2017)
- Consultant** for Development of Practical Microbiology course material for Indira Gandhi National Open University (2006- 2007)
- Convenor, Mikrobiologika Society:** Organizing academic events, conferences/seminars/workshops and students Visits; preparation of reports

Areas of Interest and Research Projects

Oral Microbiome Alterations in Betel Quid Chewers, Urban Water and Air Metagenomics, Antimicrobial Resistance (AMR)

Research Projects

Ongoing (2)

1. Resistome metagenomic profiling of bioaerosols in metro network in Delhi- NCR, " as Co-Investigator, INR 56 Lacs, 2021-24;3 years funded by ICMR, Government of India.

2. Sustainable livelihood enhancement of SC communities in Chainpura Tehsil of Niwai, Rajasthan as Principal Investigator INR 69.75 Lacs, 2 years, funded under DST-SEED, 2023-25

Completed (7)

1. Targeting biofilm formation by inhibiting Cysteine biosynthesis pathway enzymes in ESKAPE pathogens with natural products" as Co-Investigator; INR 45 Lacs, 2021-24;3 years funded by ICMR, Government of India.

2. Alterations in oral microbiome of Betel nut chewing population of North-Eastern India and its Correlation with Oral Cancers: Prospecting Microbial Consortium for Therapeutic Effect as Principal Investigator, INR 36 Lacs, 3 years funded by ICMR, Government of India.

3. DBT-Star College Grant to Department of Microbiology, as Coordinator Grant received INR 25 Lacs, 3years, funded by Department of Biotechnology (DBT), Government of India.

4. Communicating the science behind the phenomenon of antibiotic resistance to promote social awareness as Principal Investigator, Grant received Rs 5.00 Lacs, 2 years, funded under IMPRESS-ICSSR, Government of India

5. Betel Nut Chewing Induced Genotoxic Changes– Evaluation and Awareness Study in Young Population of North-Eastern State of India" for the year 2018-19 as Principal Investigator, Grant received Rs 8.00 Lacs, funded by DBT, Government of India.

6. Prospecting biologically active antibacterial compounds from plant extracts against multi-drug resistant strains" for the year 2015-16 as Principal Investigator, Grant received Rs 5.5 Lacs. Funded by University of Delhi Innovation Grant.

7. To study the level of antibiotic resistance in bacterial strains obtained from wastewater, treated water, ground water, surface water and drinking water" for the year 2013-15 as Principal Investigator, Grant received Rs 5 Lacs. Funded by University of Delhi Innovation Grant

Courses Taught

- Undergraduate: B.Sc. (Hons.) Microbiology: Recombinant DNA Technology, Inheritance Biology/Genetics, Advances in Microbiology, Cell Biology, Genetics and Genomics, Microbial Biotechnology , Bacteriology, Scientific writing and Communication
- Postgraduate: M.Sc. In Dietetics And Food Service Management : Food Microbiology offered by IGNOU, New Delhi

Research Guidance

PhD Students

- **Ms Prerna Yadav:** PhD Title: Urban water metagenomics to assess Microbiome, Resistome and virulence genes repertoire (https://drive.google.com/file/d/1K7Zvxl-dEWmHbk0MLmgjV621QJ9LpWK/view?usp=share_link)
- **Ms Harshita Gupta,** PhD Title: Prospecting oral cancer signatures in betel quid chewers through omics approach (https://drive.google.com/file/d/17bmsFu5aVLp5VXsCo69_0zr1zvyp5QIp/view?usp=share_link)

Co-supervising PhD students

- **Mansi Podia** PhD Title: Mapping of Urban air microbiome, virulence genes and resistome through metagenomics approach (https://drive.google.com/file/d/16ylOJqk62K4tS-7DJeuNuhBTmzg7CkH_/view?usp=share_link)
- **Shubham Sharma** PhD Title: Probiotic based therapeutic approach: Exploring reversal of oral microbiota dysbiosis leading to oral cancers in betel quid chewers (https://drive.google.com/file/d/1ydp0ZeUF4KRSsRrGlkXGgShgBEywUxy7/view?usp=share_link)

Junior Research Fellows

- Mayank Bahuguna in ICMR Funded Project (2019-3072); 2020-22
- Ms. Shashi Prabha Kumari in ICMR Funded Project (2021-9584) 2021 onwards

PUBLICATIONS

Research/ Review Articles (21; Citations: 1004, H Index 12)

1. Mohan, L., Anand, S., Mittal, M., Goyal, K., Akanksha, Dixit, A., Gupta, R.K. Jain, R., **Diwan, P (2023)** Cross-sectional study: knowledge assessment of youth regarding the global public health threat of antibiotic resistance. Journal of Public Health., <https://doi.org/10.1007/s10389-023-02179-7>
2. **Diwan, P.**, Nirwan, M., Bahuguna, M, Kumari, S.P., Gupta RK., (2023). Evaluating alterations of oral microbiome and its link to oral cancer among Betel Quid Chewers: Prospecting Reversal through Probiotic Intervention Pathogens, 12, 996. <https://doi.org/10.3390/pathogens12080996>
3. 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>
4. Kundu, A., Antil, M., Rana, S., **Diwan, P.**, Gupta, R.K., & Gupta, V (2022). Surveillance of two Noida drains for assessing the presence of carbapenem- resistant ESKAPE bacteria Microbiology. International Journal of Health Sciences, <https://doi.org/10.53730/ijhs.v6nS1.8615.1658-7774>
5. Jain R., Bisht T., Gupta S., **Diwan P.**, Kumar S (2023). A Cross-Sectional study of North-East Region of India: Strengthening National Integration through National Cadet Corps (NCC). Man and Society, Volume XVIII: 81-110
6. Mohan L., Anand, S., Gupta, R. K. and **Diwan, P.** (2021). Frugal Science Innovations: Promising tools for education and healthcare. J of advanced Scientific Research 12(3); 20-28
7. Snigdha, S., Bajwa, T., Anand, S., Mohan L., Goyal, K., Mittal, M., Gupta, K.R., Wahlang, J. Gupta, R. K. and **Diwan, P.** (2021). A Cross-sectional Study on Prevalence of Betel nut Chewing Among the Youth of Meghalaya, North East Region of India: Development of Multifaceted Prevention Strategy: Prevalence of Betel Nut Chewing Among the Youth of Meghalaya” Accepted for Publication in *Asian Pacific Journal of Health Sciences*, ISSN 2350-0964; E-ISSN 2349-0659
8. Chadha, J., Gupta, M., Nagpal, N., Sharma, M., Adarsh, T., Joshi, V., Tikku, V., Mittal, T.,

- Nain, V.K., Singh, A., Snigdha, S.K., Chandra, N.S., John, S., and **Diwan, P.** (2021) Antibacterial potential of indigenous plant extracts against multidrug-resistant bacterial strains isolated from New Delhi region. *GSC Biological and Pharmaceutical Sciences*, 14(02), 185-196. DOI: 10.30574/gscbps.2021.14.2.0053. (Peer Reviewed)
9. Dwivedi, V., Ayyagari, A., Chandran, R., **Diwan, P.**, Gupta, S., Gupta, V. (2020). Repurposing Potential of Diminazene Aceturate as an Inhibitor of the *E. coli* DNA Gyrase B. *Journal of Biomedical Research & Environmental Sciences*, 1(6), 263- 270. doi: 10.37871/jbres1153.
10. Chandran, R., Ayyagari, A., **Diwan, P.**, Gupta, S., Gupta, V. (2020). In silico Screening of Approved Drugs to Describe Novel *E. coli* DNA Gyrase A Antagonists. *Journal of Biomedical Research & Environmental Sciences*, 1(6), 233-240. doi: 10.37871/jbres1148. (Peer Reviewed)
11. Prasad S, Sakthi; Ratha, Itishree; Adarsh, Tarun; Anand, Akriti; Sinha, P. **Diwan, P**; Annapurna, K.; Biswas, K In vitro Bioactivity and Antibacterial Properties of Bismuth Oxide Modified Bioactive Glasses *Journal of Materials Research* 2018, 33 (2): 178-190.
12. Prasad S, Datta, S Adarsh, T, **Diwan, P**, Annapurna, K, Kundu, B and Biswas, K J. Effect of boron oxide addition on structural, thermal, in vitro bioactivity and antibacterial properties of bioactive glasses in the base S53P4 composition,. *Non-Crystalline Solids*, 498 (2018) 204- 215
13. Nain.VK, Khurana. GS., Singh.S.,Vashitha. A., Kumari .S., Singh. A., Aggarwal. N., Arora. A., Khan. A., Thareja. G., Gupta. K, Jain. R. and **Diwan. P** (2015). Antibiotic resistance pattern in bacterial isolates obtained from different water samples of Delhi region. *DU Journal of Undergraduate Research and Innovation*, 1 (3), 219-227.
14. **Diwan P**, Lacasse J and Schang LM (2004). Roscovitine inhibits activation of promoters in HSV-1 genomes independently of promoter-specific factors. *Journal of Virology*, 78(17): 9352–9365
15. Geun J K, Lee E G, Boyapati G, Hahm MS, **Diwan P**, Gi Sub Choi, Ryu YW, Ro HS, Chung BH (2003). Identification, molecular cloning and expression of a new esterase from *Pseudomonas* sp.KCTC 10122BP with enantio selectivity towards racemic ketoprofen ethyl ester. *Journal of Molecular Catalysis B: Enzymatic* 22: 29–35
16. Gupta, R, Saxena, R K, Mohapatra, H and **Ahuja, P** (2002). Microbial variables for bioremediation of heavy metals from industrial effluents. *Progress in Industrial Microbiology*, 36: 189-229 (Scopus Indexed)

17. **Ahuja P**, Mohapatra H, Saxena RK, Gupta R (2001). Reduced uptake as a mechanism of zinc tolerance in *Oscillatoria angustissima*. Current Microbiology, 43(5): 305-310.
18. Gupta R, **Ahuja P**, Khan S, Saxena RK and Mahopatra H (2000). Microbial biosorbents: Meeting challenges of heavy metal pollution in aqueous solutions. Current Science, 78 (8): 967-973 (Scopus Indexed)
19. **Ahuja P**, Gupta R and Saxena RK (1999). Sorption and desorption of cobalt by *Oscillatoria angustissima*. Current Microbiology, 39, 49-52 (Scopus Indexed)
20. **Ahuja P**, Gupta R and Saxena RK (1998) Zn²⁺ biosorption by *Oscillatoria angustissima*. Process Biochemistry, 34, 77-85 (Scopus Indexed)
21. **Ahuja P**, Gupta R and Saxena RK (1997). *Oscillatoria angustissima*: A promising Cu²⁺ biosorbent. Current Microbiology, 35, 151-154 (Scopus Indexed)

E-CHAPTERS/ BOOK CHAPTERS (9)

1. Podia, M., Yadav, P., Hooda, S., **Diwan, P.**, and Gupta, R.K. (2023) Microbial Weathering of Rocks in Natural Habitat: Genetic Basis and Omics-Based Exploration" accepted for publication in edited book "*Weathering and Erosion Processes in the Natural Environment*" Wiley Publication *In press*.
2. **Diwan P.** Gupta, R. K. (2021). Substantial Thrust to Indian Rural Economy through Village Dairy Cooperatives as Envisaged by Gandhi. In Devendra Kumar (Eds.) Self-Reliant India: A Gandhian Perspective, pp. 80-96, Shivalik Prakashan, Delhi India, ISBN 978-93-87195-86-8.
3. Shahanshah, M F H, Sehrawat H, Wijewardana, C, Pal, S., Gupta, A., **Diwan, P.**, Sanjay Gupta, S.³, Gupta, V. (2021). Recent Advances in Chikungunya Virus Therapeutics: An Overview. In Phillip Galvan (Eds.) Chikungunya: Epidemiology, Transmission and Therapeutics, In Press. Nova Science Publishers, ISBN: 978-1-53619-978-9.
4. Gupta, R. K., **Diwan P.** (2020). The Gandhian way of Life: An Impeccable solution to World Environmental Concerns. In Devendra Kumar (Eds.) Gandhi Across the Boundaries, pp: 52-62, Shivalik Prakashan, Delhi India, ISBN 978-81-945562-1-3.
5. Mohan, L., Goyal, K. , Anand, S., Mittal, M., Snigdha, S., Bajwa, T., Gupta, K. R., Gupta, R. K. and **Diwan, P.** (2020). Foldscope: A New Age Exploratory Educational Tool. In A. D. Sharma (Ed.). Foldscope and its Applications (pp. 188-193). New Delhi: National Press Associates. ISBN 978-93-85835-68-1.

6. Gupta V., Aggarwal S., **Diwan. P.**, Gupta, S. (2015). Bacteria and their Cell Organization ISSN 2349-154X. Virtual Learning Environment, ILL University of Delhi
7. Aggarwal S., **Diwan P.**, Anand P., Negi A., (2015). Archaeobacteria. ISSN 2349-154X. Virtual Learning Environment, ILL University of Delhi
8. Aggarwal S., Gupta V., **Diwan P.** (2015). Bacterial and their cell Organization-Cell Envelope. ISSN 2349-154X. Virtual Learning Environment, ILL University of Delhi
9. Negi A., **Diwan P.**, Aggarwal S., Anand P. (2015). Eubacteria: Gram Positive bacteria. ISSN 2349-154X. Virtual Learning Environment, ILL University of Delhi

EXPERIENCE IN ORGANISING

A. TRAINING PROGRAM/WORKSHOPS/FDP ORGANIZED

1. One-week National Faculty development program on “**Essential skills in Genomics**” from 4th August to 11th August 2023 in association with Centre for Innovation in Infectious Disease Research, Education and Training (CIIDRET) and Delhi School for Skill Enhancement and Entrepreneurship Development (DSSEED).
2. Hands on training workshop for students on **Medical Sales Representative – MSR** under IQAC in association with Life Sciences Sector Skill Development Council (LSSSDC) from 28 November-1 December 2023.
3. Hands on training workshop for students on **Environment Sustainability Practices – ESP** under IQAC in association with Life Sciences Sector Skill Development Council (LSSSDC) from 30 November-2 December 2023.
4. One-week Hands-on Summer Training workshop for students “**Exploring and Identifying Microbial diversity**” from 13th July 2022 to 17th July 2022 under DBT Star College Scheme.
5. One-week Hands-on workshop for students “**Basic Techniques in Microbiology**” from 17th December 2022 to 23rd December 2022 in association with Centre for Innovation in Infectious Disease Research, Education and Training (CIIDRET) and Delhi School for Skill Enhancement and Entrepreneurship Development (DSSEED) under 100-day Skill Festival during Centenary Celebrations of University of Delhi

6. Online workshop on “**Drug Discovery Workshop Series on StarDrop and SeeSAR**, Bengaluru 6 -10th August 2020 by Zastra Innovations, Bengaluru.
7. One-week Online Faculty Development Program on **Biosafety, Bioethics and IPR**, Under DBT Star College Scheme organized by Department of Microbiology, from 24th -28th August 2020
8. DBT Sponsored National Workshop on **Molecular docking in drug design** from 31st March to 1st April 2021, organized by Department of Microbiology, under DBT -Star College Scheme.
9. **Entrepreneurship Awareness Workshop** on 6th February 2021 by Centre for Entrepreneurship and Technology Development (E-cell) in association with BIRAC-Tie.
10. One Week online **Faculty Development Program on ICT Tools for Effective Teaching Learning** organized by Media Production Centre in association with Internal Quality Assurance Cell (IQAC) from 5th -9th August 2020.
11. Workshop on **Outcome based learning** for faculty Ram Lal Anand College, University of Delhi on 16th September 2019
12. **Training session for teachers and non-teaching staff** on rules and regulation Ram Lal Anand College, University of Delhi, 16th September 2019
13. Two days training Program entitled “**ICT Tools for Beginners**” for Non-teaching Staff Ram Lal Anand College, University of Delhi from 18th-19th January 2019
14. Interactive workshop “**Legal rights for women**” dealing with fundamental rights, gender equality, cyber security, cyber bullying, cyber stalking, and the laws dealing with its protection, 19th September 2019
15. Organized session to motivate students for **innovation and entrepreneurship**, with Founder of Start Up Monk, angel investor and a TEDx Speaker. Mr. Sivesh
16. Conducted a **DBT sponsored Foldscope workshop** for 75 students and faculty; 11th September 2019
17. Organized Workshop entitled “**Intellectual Property Rights (IPR)** and Entrepreneurship : How to kick start your start-up” on 30th March 2019 at Ram Lal Anand College
18. Organized **Entrepreneurial workshop** “Startify” where entrepreneurs were invited for sharing their journey with students on 21st February 2019
19. Under Research Collaboration with St. Edmunds college, Meghalaya Conducted

Awareness workshops in Different schools of NER Department of Biotechnology, Ministry of Science and Technology (2018-19)

20. FDP “**Quality assurance in HEIs: Reorienting Teaching-Learning Paradigm**” from 15-19 March 2019 at Ram Lal Anand College
21. Workshop organized association with Centre for Human Microbial Ecology (CHME), Translational Health Science and Technology Institute (THSTI,) Faridabad Ram Lal Anand College, University of Delhi, 18th April 2017.

B. ADDON SKILL DEVELOPMENT CERTIFICATE COURSES ORGANIZED FOR STUDENTS

1. 2nd online certificate course on Basic Statistics for Biological Sciences from 14th January 2023 to 12th February 2023 under DBT Star College Scheme in association with Centre for Innovation in Infectious Disease Research, Education and Training (CIIDRET) and Delhi School for Skill Enhancement and Entrepreneurship Development (DSSEED) under 100 day Skill Festival during centenary celebrations of University of Delhi
2. 40-hour Online Certificate Course on Basic Statistics for Biological Sciences (July 2021) under DBT STAR College Scheme
3. Online certificate course “Python in Biological Sciences” (January 2021) under DBT STAR College Scheme
4. Online certificate course “Exploring Feasible Alternative Technologies to Address Environmental Issues” (September- November 2020) under DBT STAR College Scheme
5. Online certificate course of 4 weeks “Scientific writing and Research Ethics” , July-August 2020 under DBT STAR College Scheme

C. CONFERENCE/ SEMINAR/WEBINAR ORGANIZED

1. PAI symposium on The Role of Probiotics in Neonatal and Child Health" under the aegis of the Probiotic Association of India, April 2023.
2. Webinar entitled “Awareness on Digital Financial Security” on 4th July 2023
3. Hindi workshop for faculty on 23-24th June 2022
4. Dr Kusum R. Gupta Memorial Lecture, Role of T cells in infection and immunity, 21st April 2022.
5. Talk entitled “Intellectual Property rights in Biological sciences: A kaleidoscope of

opportunities “, 7th April 2022

6. Webinar “Challenges in SDG goals on health and nutrition in India “on 11th January 2022
7. Webinar for Faculty entitled “Mentoring Students in Higher Educational Institutions” July 12, 2021, IQAC, Ram Lal Anand College, University of Delhi
8. Webinar “Copyright and Plagiarism Issues for Teaching and Research” The Department of Political Science in collaboration with the Internal Quality Assurance Cell (IQAC), Ram Lal Anand College, June 24, 2021, Ram Lal Anand College, University of Delhi
9. E-summit’21 with 5 successful Entrepreneur Speakers: Saurabh Jain, Vice president at Paytm & Founder at Fun2Do Labs; Nixon Joseph- President and Chief Operating officer at SBI Foundation; Arjun Vaidya- CEO at Rd. Vaidya; Deep Bajaj- Founder Sirona and Pee buddy; Anil Khaitan - Chairman and Managing Director at Sunil Healthcare Ltd on 26th February 2021
10. A Cancer awareness talk on 22nd March 2021 organized by Department of Microbiology, in association with Rajiv Gandhi Cancer Institute and Research Centre
11. Two-day online National Conference entitled “Self-reliant India: A Gandhian Perspective” 28th- 29th September 2020 Gandhi study circle, Ram Lal Anand College and Gujarat Vidhyapeeth, Deemed University, Ahmedabad
12. International Seminar entitled “Nanoparticles in Biology” on 29th January 2020 under DBT star college Scheme and Ram Lal Anand College, University of Delhi
13. National Webinar “Next Generation Sequencing and metagenome analysis” 15th- 16th May 2020.
14. National Seminar entitled “Metagenomics and Genome Editing” Ram Lal Anand College, University of Delhi, 5th February 2020
15. Using E-Library Resources: INFLIBNET and University of Delhi Library Ram Lal Anand College, University of Delhi 30th January 2020
16. Two days international Interactive webinar on Lifestyle, weight management, Nutrition and Immunity from 23rd -24th June, 2020 organized by Department of Physical Education and IQAC. Speaker: Dr. Rakesh Tomar, Faculty (Physical Education), King Fahd University of Petroleum & Minerals, Saudi Arabia.
17. National Webinar entitled ‘Plagiarism Issues, Policies and Detection Tools’ on 25th June 2020 by Institutional Academic Integrity panel and IQAC in association with

INFLIBNET; Speakers: Prof. J. P. Singh Joorel, Director, INFLIBNET.; Mr. Manoj Kumar K. Scientist - E (CS), INFLIBNET

18. Webinar entitled “Benefits of Digital Administration in Lockdown” held on 1st May 2020 jointly hosted by jointly hosted by Internal Quality Assurance cell Sri Guru Nanak Dev Khalsa College and Ram Lal Anand College
19. Webinar entitled “Role of Youth in National Development Post COVID-19” held on 16th May 2020 Internal Quality Assurance cell and NCC Unit, Ram Lal Anand College.
20. National seminar “Probiotics: Ameliorating the burden of lifestyle diseases “Ram Lal Anand College, University of Delhi 1st Feb 2019.
21. International Seminar, “Infectious Diseases: Current Strategies for Diagnosis and Therapy” at Ram Lal Anand College, New Delhi, 2 February 2018.
22. Micro-Vitae 2020 with Keynote lecture By Prof Pawan K Dhar, JNU, quiz and other activities, 4th February 2020
23. Talk by Dr. Piyush Agrawal (batch 2008-2011, Postdoctoral Fellow, National Cancer Institute, NIH, USA) under Alumni Lecture series, 8th November 2019
24. Talk by Gaurav Lohia PhD Student, IISc Bangalore under Alumni Lecture series, 13th January 2020
25. Talk by Mr. Abhilash Chakravarty (batch 1997-2000), a business leader and author under Alumni Lecture series, 22nd January -2020.
26. Organized talk by Dr. Chander Prakash (batch 1997-2000, now Associate Professor, Department of Medical Oncology, AIIMS, New Delhi) under Alumni Lecture series, 31st October 2019
27. An awareness talk session on Spinal Cord and sports Injuries Ram Lal Anand College, University of Delhi, 22nd August 2017

PROFESSIONAL DEVELOPMENT

a. FDP/ WORKSHOPS/WEBINAR/CONFERENCE ATTENDED

- Conference on "Human Microbiome in Health and Disease" and hands-on workshop on "Next Generation Sequencing and Data Analysis" from February 15–17, 2023 at Translational Health Science and Technology Institute (THSTI), Faridabad
- 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.

- Workshop “Bacterial genome identification, sequencing and characterization” 20 April 2022 organized by Centre for Innovation in Infectious Disease Research, Education and Training (CIIDRET) and Theomics International Private Limited, Bengaluru with DSSEED-IoE
- Workshop ‘Basic to Advanced Bioinformatics, Machine Learning, and Multiomics data analysis’ organised by Nextgenhelper, New Delhi from March 12 -31, 2022
- Two weeks online workshop entitled “Comprehensive e-learning to e-training guide for administrative work” from May 25-June 05, 2020, organized by Teaching Learning Centre, Ramanujan College, University of Delhi, Sponsored by MHRD.
- National Webinar entitled “Feedback, SSS, Best and Distinctive Practices” organized by Haribhai. V. Desai Arts, Science and Commerce College & IQAC Cluster in Collaboration with WhiteCode from 19-21 May 2021
- Webinar entitled “Senior and Intermediate level Fellowships in Basic Biomedical Research” 10th February 2021, DBT India Alliance
- Webinar entitled “International Summit on Quality Indices in Higher Education-2020” 6th- 7th November 2020, Delhi Technological University
- E-conference entitled “Role of NCC in National Integration” 17th-18th October 2020, NCC, Ram Lal Anand College, University of Delhi
- Workshop on “Stress Management skills” 22nd October 2019, Centre for Human Values, Ethics and life Skills Ram Lal Anand College, University of Delhi in association with Youth Wing of ISKON
- 5th International Yoga Day workshop, 19th -21st June 2019, Ram Lal Anand College University of Delhi
- Webinar Series entitled "Quality Assurance in Higher Education: Practices and Issues" held on 4th– 8th May, 2020. organized jointly with IQAC, Hansraj College under Paramarsh, a UGC scheme for mentoring NAAC accreditation aspirant institutions to promote quality assurance in higher Education.
- Webinar entitled “CRITERIA V: Student support and progression under revised accreditation framework of NAAC” organized by IQAC, Bharati College in collaboration with Sri Aurobindo College (Evening), University of Delhi on April 27, 2020
- Webinar entitled “Referencing and Citation” on 20th April 2020 organised by Sri Aurobindo College, University of Delhi
- Faculty Development Program entitled “Writing Research Proposals and Addressing IPR Related Issues” from 29-30 March 2019 at Ram Lal Anand College, University of Delhi
- Faculty Development Program entitled “Emotional Intelligence” at Ram Lal Anand College from 4-5th January 2019.
- Faculty Development Program “Shifted Goalposts in New NAAC: A Challenge for today’s IQAC” held on 10th September 2018 at SGND Khalsa College, University of Delhi.
- Foldscape Orientation Workshop organized by DBT at ICGEB on 16th April 2018
- Workshop entitled Quality Assurance in Higher Education at India International Centre, New Delhi organized by Ramanujan college IQAC, 26th February 2018.
- National Seminar entitled “Understanding Gandhi”. 4th August 2018, Gandhi Study Circle, Ram Lal Anand College, University of Delhi and Gandhi Smriti and Darshan Samiti
- Two days Indo-Portuguese Workshop on “Emerging Trends of Nanotechnology in

Chemistry and Biology” at University of Delhi, jointly organized by Hansraj College and Deshbandhu College, University of Delhi, Delhi. (March 12th – 13th, 2016).

- Training programme in Science Communication organized by Centre for Science Education and Communication (CSEC), University of Delhi, December 20-22, 2016.
- Faculty Training Programme in “Research Project Management: Proposal to Publication and Beyond” at the Centre for Science Education and Communication, University of Delhi, July 2016.
- Three-day Workshop on “Bioinformatics Workshop for Life Sciences Faculty” organized by Sri Venkateswara College, University of Delhi, Delhi. (July 27th – 30th, 2011).
- Five-day Workshop on “RNAomics Isolation to Interference” at Shivaji College, organized by Department of Biochemistry, University of Delhi, New Delhi. (October 25th – 29th, 2010).
- International Symposium entitled “Microbial Biotechnology: Diversity, Genomics and Metagenomics” Department of Zoology, 18th- 20th November 2008 during 49th Annual Conference of AMI.
- International Conference entitled “Microbial Diversity: Current Perspectives and Potential Applications” 16th-18th April 2005, Department of Microbiology, University of Delhi South Campus
- Workshop on bioinformatics titled: Coping with the pace. Department of Biotechnology - Distributed Information Subcentre, University of Delhi (1996)

b. COURSES COMPLETED

- ISO21001:2018, Internal Auditor Course and assessment requirements for International Standard for "Management Systems for Educational Organizations-EOMS" recognized by Exemplar Global, USA.
- Completed Internal Academic auditor training course conforming to requirements of ISO 9001; 2015 and ISO 19011;2018 from 2-13 August 2021 organized by IQAC Cluster and white code.
- Metagenomics Applied to Surveillance of pathogens and Antimicrobial Resistance from Technical University of Denmark. MOOC, Coursera Platform, 2020
- One week certificate course entitled “Digital Teaching Techniques” 29th June 2020 to 04th July 2020, ICT Academy
- Course on Outcome Based Education by IQAC Cluster India in collaboration with White Code from 2-5th July 2021.
- Four-day Course entitled “Final Stage Preparation of AQAR for Affiliated UG/PG Colleges by IQAC Cluster India in collaboration with White Code from 3-6th May 2021
- One week Course entitled “Radiation Safety” University of Alberta, Canada, 2001
- Course entitled “Biosafety and WHIMS” University of Alberta, Canada, 2001
- Course on “Effective Writing Resources for Publication” at University of Alberta, 2003
- Training course for “Confocal Laser Scanning microscopy” at Cross Cancer Institute, University of Alberta, Canada, 2003
- Three weeks Refresher Course, CPDHE, University of Delhi, 2009
- Three weeks Refresher Course, Academic Staff College, Jawahar Lal Nehru University, New Delhi, 2008
- Four weeks Orientation Course, CPDHE, University of Delhi, 2005

PRESENTATIONS/RESOURCE PERSON

- 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
- Antil M., **Diwan P.**, Gupta R., Gupta V. “WGS-enabled surveillance identifies fosfomycin resistance gene in MDR isolates from Noida drains: Can MDR isolates be managed with repurposed drug Fosfomycin?” 50th National Seminar on Crystallography, 22nd November - 24th November 2023, CSIR-IMTECH, Chandigarh.
- Antil M., **Diwan P.**, Gupta R., Gupta V. “Whole-genome based characterization of Multi-drug resistant *Enterococcus faecium* isolated from Noida” 7th International Conference on Translational Research, 16th October - 18th October 2023, AIIMS, New Delhi & KIIT University, Bhubaneswar at AIIMS New Delhi.
- Diwan, P. (2021). Resource person “AQAR Format 2019-20 and Before”, workshop for faculty organised by PGDAV COLLEGE, University of Delhi, 25 May 2021.
- Diwan, P. (2020). Resource Person “Online Meeting Apps for teaching-learning”, in one week FDP entitled “ICT Tools for Effective Teaching learning”, Ram Lal Anand College, University of Delhi, 7th August 2020.
- Diwan, P. (2020). Resource Person “Foldscope Assembly and Use”. Workshop for teachers of Aspirational Districts of Rajasthan, 9th December 2020.
- Diwan, P. (2020). Resource Person “Scientific Presentations & Posters; Reproducibility in Research; Data Presentation in scientific writings” in Certificate Course entitled “Scientific Writing & Research Ethics” Under DBT STAR COLLEGE scheme, 5th August 2020, Ram Lal Anand College, University of Delhi
- Diwan, P. (2019). Resource Person “Human Values, Ethics and Life Skills” in Certificate Course in Human Values, Ethics and Life Skills, 25th February 2019, Ram Lal Anand College, University of Delhi
- Gandhi P, Sahu S, Lohia GK, Dwivedi V, Pratibha, Kaur K, Rajat, Niladari, Godhara SK, Diwan P, Gupta RK, Gupta S, Gupta V (2019) Structure based virtual screening of novel inhibitors against non-structural protein NS5B of Hepatitis C virus at international conference on Biosciences and Biotechnology held at Jaypee Institute of Information Technology, Noida from 31st – 2nd February, 2019.
- Diwan, P. (2017). Resource Person “Basics of Microsoft PowerPoint”, in FDP entitled “ICT workshop on Microsoft Excel and PowerPoint” 9th to 14th October 2017, Ram Lal Anand College, University of Delhi

- Invited for National Conference, “Restructuring of NSS: Concept Paper” as NSS Program Officer. Hon’ble MoS, Youth Affairs & Sports Sh. Vijay Goel presided over the event at India Habitat Centre, 10 July 2017.
- Invited to participate in the conference entitled “Restructuring of NSS” as NSS Program officer which involved discussion with Honorable Minister of Youth Affairs and Sports, Shri Vijay Goel, on various aspects of NSS held at Vigyan Bhawan, New Delhi on 31st March 2017.
- Chadha J, Gupta M, Nagpal N, Adarsh T, Sharma M, Mittal T, Joshi V, Tikku V, Nain VK, Singh A, Snigdha SK, Chandra NS, John S, Gupta KR, and Diwan P (2016). Presentation “Prospecting plant extracts for antibacterial activities against multi-drug resistant bacterial strains isolated from Delhi region” at 57th Annual Conference and International Symposium of Association of Microbiologists of India, Guwahati, 24-27 November 2016.
- Makhija S, Sharma S, Nath S, Sharma S, Fatima M, Parashar C, Sharma V, Singh D, Sandeep Nain VK, Singh A, Choudhary V, John S, Diwan P and Gupta KR. (2016). Presentation “Antimicrobial effect of silver nanoparticles on multi-drug resistant strains isolated from Delhi region” at 57th Annual Conference and international symposium of Association of Microbiologists of India, Guwahati, 24-27 November 2016.
- Nain.VK, Khurana. GS., Singh. S.,Vashitha. A., Kumari.S., Singh. A., Aggarwal. N., Arora. A., Khan. A., Thareja. G., Gupta. K, Jain. R. and Diwan. P.(2015). Presentation “Antibiotic resistance pattern in bacterial strains obtained from different water samples from Delhi region” at International Conference on “Antimicrobial resistance, Novel Drug Discovery and Development: Challenges and Opportunities” jointly organised by SRM University Haryana, and IAMPV held on March 2-3, 2015 at India Habitat Centre, Lodhi Road, New Delhi, India
- Nain.V K, Khurana. G S., Singh.S., Vashitha. A., Kumari.S., Singh. A., Aggarwal. N., Arora. A., Khan. A., Thareja. G., Gupta. K, Jain. R. and Diwan. P. and Diwan M. (2015). Multidrug resistance in bacterial isolates obtained from different water samples obtained from Delhi Region”. symposium on "Antibiotic Resistance: A Major Global Threat" organized by Microbiology Department, Bhaskaracharya College of Applied Sciences: March 2016
- Sahu S, Gandhi P, Diwan P, Gupta RK, Gupta S , Gupta V (2015). Drug Repurposing: Virtual Screening of Inhibitors for NS2 Protease of HCV presented at 56Annual Conference of Association of Microbiologists of India (AMI-2015) & International Symposium on “Emerging Discoveries in Microbiology” held from 8-10 December 2015 at Jawahar Lal Nehru University
- Nain.VK, Khurana. GS., Singh.S., Vashitha. A., Kumari.S., Singh. A., Aggarwal. N., Arora. A., Khan. A., Thareja. G., Gupta. K, Jain. R. and Diwan. P (2015). Antibiotic resistance pattern in bacterial isolates obtained from different water samples of Delhi region” at Annual event of University of Delhi “Antardhwani”, February 20-22, 2015.
- Nain.VK, Khurana. GS., Singh.S., Vashitha. A., Kumari.S., Singh. A., Aggarwal. N., Arora. A., Khan. A., Thareja. G., Gupta. K, Jain. R. and Diwan. P. Antibiotic resistance pattern in bacterial isolates obtained from different water samples of Delhi Region” in symposium “Recent Trends in Biology” at Maitreyi College, University of Delhi, February 25th, 2015.
- Diwan-Ahuja P, Schang LM. Differential requirements for cyclin- dependent kinaases in transcription driven by HSV-1 IE promoters depending on promoter location to viral or

cellular genomes at 28th International Herpes workshop, Madison, Wisconsin, USA, July 26-31, 2003.

- Diwan-Ahuja P, Schang LM. Genomic Effects on Regulation of Transcription of Herpes Simplex Virus-1 Immediate Early Genes by Cyclin Dependent Kinases for IUBMB, Toronto, July 20-24, 2003.
- Anand P, Ahuja, P, Gupta, R and Saxena R.K. (1994). Metal accumulation by microorganisms: a new perspective for biotechnology presented at 16th International Union of Biochemists and Molecular Biologists (IUBMB), New Delhi India (Sept 1994).
- Ahuja, P, Gupta, R and Saxena R.K. National Symposium on Microbes in Plant Improvement and Environmental Protection held at Delhi, India (1997).
- Ahuja, P, Gupta, R and Saxena R.K Zinc biosorption by *O. angustissima*. Symposium on Algal Biology and Biotechnology held at Banaras (1997).
- Ahuja, P, Gupta, R and Saxena R.K Removal and selective recovery of zinc, copper and cobalt by biomass of *Oscillatoria angustissima*. 38th Annual Conference of Association of Microbiologists of India held at New Delhi, 1997.
- Ahuja, P, Gupta, R and Saxena R.K Removal of copper through biosorption by *Oscillatoria* sp. 36th Annual Conference of Association of Microbiologists of India, Hissar (1995).
- Ahuja, P, Gupta, R and Saxena R.K Zinc uptake by *Oscillatoria* sp: Effect of modifying factors and ultrastructural study. 35th Annual Conference of Association of Microbiologists of India, Mysore (1994).
- Ahuja, P, Gupta, R and Saxena R.K (1994). Tolerance and accumulation of heavy metals by cyanobacteria. 34th Annual Conference of Association of Microbiologists of India, Ludhiana, India, 1994.

Awards/ Fellowships

- **Best Teacher Award** for Academic year 2021-22 By Microbiologists' Society of India on 22nd January 2023
- **Biotechnology Short term overseas Associateship** sponsored by DBT, Ministry of Science and Technology, India (2006-2007) for visiting Scientist Program at University of Alberta, Canada for four months.
- **Post-Doctoral Research fellowship** at Faculty of Medicine, University of Alberta, Canada (2001-2004).
- **Post-Doctoral Research fellowship**, Microbial and Bioprocess Unit, Korea Research Institute of Biosciences and Biotechnology, South Korea (2000-2001).
- **Golden Jubilee Award for Best Presentation by a Young Scientist** in National Symposium on Microbes in Plant Improvement and Environmental Protection, held at New Delhi (1997)
- Fellowship from the University Grant Commission for the doctoral studies (NET Qualified).

Association With Professional Bodies

- IQAC Cluster India
- Life member of Association of Microbiologists of India (AMI)
- Life member of Probiotic Association of India (PAI)

- Microbiologists' Society, India

Other Activities

- Developed research collaborations with other Institutions.
- Worked for Public awareness on the issue of antibiotic resistance (under ICSSR project) through workshops in Schools, New Delhi
- Worked for promotion of science through use of frugal innovations in low resource settings at North-Eastern region of India (under DBT Grant)
- Worked for Public awareness on the adverse effects of Betel Quid Chewing in North-Eastern region of India Under Research Collaboration with St. Edmunds college, Meghalaya
Conducted Awareness workshops in Different schools.
- Conducted Several DBT sponsored Foldscope workshops for students and faculty: