



Dr	First Name	SEEMA	Last		Photograph
Title	1 Hot I tullio		Name		Thotograph
Designation	Assistant Professor (Permanent)				
			f Chemistry, Shivaji College,		
	University of	f Delhi, Delhi	-110027.		
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Educational Qualification	15				
Degree	Institution			Year	
Ph.D. (Chemistry)		t of Chemistr	ersity	2014	
M.Phil. (Chemistry)		t of Chemistr			
PG		Department of Chemistry, Jamia Millia Islamia			
UG	Departmen	t of Chemistr	y, Jamia Mill	ia Islamia	
Any other qualification					
Career Profile		• • •			
Total Experience: 10 ye	ars (leaching: a	s years, Resea	arch: 2 years)		
Assistant Profes	ssor (Permanent	Faculty). De	partment of C	hemistry. Shiva	ji College, University of Delhi,
India (February					,
			nent of Chemi	stry, Deshbandh	u College, University of Delhi,
India (Decembe	r 2022, - Februa	ry 2024).			
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- 7. Financial assistance committee member since last four academic year (2019-20, 2020-21, 2021-22, 2022-23) Deshbandhu College.
- 8. Chemical Society "Resonance" Co-coordinator since 2020 to 8 December 2022.
- 9. Music Society teacher coordinator, Deshbandhu College 2021-22, 2022 -23.
- 10. Azadi ka Amrit Mahotsav Committee Member, Deshbandhu College.
- 11. Wall Magazine "Reactive" Teacher coordinator since 2020 to till 8 December 2022.
- **12.** Editorial board member in a national workshop on skill development to build a clean India held at Deshbandhu College, University of Delhi (7-8 June 2018).

#### Areas of Interest/Specialization

Specialization: Inorganic Chemistry, Material Chemistry

Areas of Interest: Material Chemistry, Clay polymer nanocomposite, organoclays, drug delivery, nano biomaterials, nanotechnology and environment remediation.

My research area mainly focused on the development of naturally occurring clay mineral based nano materials as oral and extended release drug delivery vehicles and application of Nanotechnology for environment remediation.

# Subjects Taught

- Science and Society
- Analytical Methods in Chemistry
- Inorganic materials of industrial importance
- Industrial chemicals and environment
- Basic Analytical Chemistry
- Organometallics and bio inorganic chemistry
- Chemistry of D block elements
- Chemistry of s and p block elements, State of matters and chemical kinetics
- Atomic structure and chemical bonding
- Fossil fuels, cleansing agents and food additives
- Chemistry of cosmetics and perfumes
- Molecular spectroscopy
- Ionic Equilibria

## **Publications Profile**

## Research papers published in Refereed/Peer Reviewed Journals

## Citations: 315, H index: 9, i10 index; 9

- 1. Advances in metal-organic frameworks for water remediation applications, **S. Lal**, Singh, P. Singh, A. Singhal, S. Kumar, A. P. Gahlot, P. Kumari, RSC Advances, (Accepted on 5<sup>th</sup> December 2023).
- 2. Recent biochemical advances in antitubercular drugs: Challenges and Way Forward, A. Jain, R. Kumar, P.Mothsra, S. Lal, A. K. Sharma, A. K. Singh, Y. Singh. Topics in Medicinal Chemistry, (Under revision).
- Chitosan Biopolymer as Sustainable Material for Chromium Removal from Waste Water Bodies. S. Lal, S. Bhatnagar, Current Material Sciences, (Accepted 25<sup>th</sup> October 2023)
- 4. Covid-19 Pandemic: An Overview of its Origin, Current Status, and Ongoing Clinical Trials, K. Majila, S. Lal, M. F. Ahmad, 2022, Coronaviruses, Volume 3, Issue 3, page23-34.
- Potential diagnostics and therapeutic approaches in COVID-19. P. Kumari, A. Singh, M. R, Ngasainao, I. Shakeel, S. Kumar, S. Lal, A. Singhal, S. S. Sohal, I. K. Singh, M. I. Hassan, Clinica chimica acta; international journal of clinical chemistry, August 2020, 510, 488-497.
- 6. Exploring carbonaceous nanomaterials for arsenic and chromium removal from waste water. P. Kumari, S. Lal, A. Singhal; Journal of Water Process Engineering, June 2020, 36, 101276. (I.F.
- Design and Development of a Biocompatible Montmorillonite PLGA Nanocomposites to Evaluate In Vitro Oral Delivery of Insulin. S. Lal, A. Perwez, M. A. Rizvi and Monika Datta, Applied Clay Science, 2017, Vol. 147, Page 69-70.

- 8. In vitro prolonged gastric residence and sustained release of atenolol using novel clay polymer nanocomposite. **S. Lal** and M. Datta, Applied Clay Science, 2015, Vol. 114, page 412421.
- 9. Organoclay Pluronic F68-Montmorillonite, As A Sustained Release Drug Delivery Vehicle For Propranolol Hydrochloride, **Seema** and Monika Datta, European Chemical Bulletin, 2014, 3(6), 593-604.
- 10. Clay polymer nanocomposites as a novel drug carrier: synthesis, characterization and controlled release study of Propranolol Hydrochloride. **Seema** and Monika Datta, Applied Clay Science, 2013, Vol. 80-81, 85–92.
- 11. MMT-PLGA nanocomposites as an oral and controlled release carrier for 5- Fluorouracil: a novel approach. **Seema** and Monika Datta, International Journal of Pharmacy and Pharmaceutical Sciences, 2013, Vol. 5 (2), 332-341.
- 12. In vitro sustained delivery of Atenolol, an antihypertensive drug using naturally occurring clay mineral Montmorillonite, as a drug carrier. **Seema** and Monika Datta, European Chemical Bulletin, 2013, 2(11), 942-951.

## **Book Chapter**

- Astha Tripathi, Seema Lal, Pratibha Kumari, Carbon nanomaterials for adsorption and desorption of Pesticides, Chapter in the book entitled carbon nanomaterials and their composites as adsorbents, published by springer (Under proof correction).
- Clay nanocomposites as oral drug delivery System for an anticancer drug. **Seema**, Monika Datta and B.D. Malhotra. Biomedical Applications of Nanostructure Materials, 2010, 405-410, ISBN 023-033-021-3. (Macmillan Advanced Research Series).
- Delivery vehicle for the oral administration of Insulin: Development of Montmorillonite PLGA nanocomposites as drug delivery vehicle. **Seema Lal** and Monika Datta, Scientific Tracks Abstracts: J Pharm Drug Deliv Res (DOI: 10.4172/2325-9604.C1.008).
- Advanced applications of green materials in catalysis applications, P. Kumari, S. Lal, A. Singhal, Book Chapter in Applications of Advanced Green Materials, Elsevier, Woodhead Publishing in Materials, January 2021, pages 545-571 (ISBN: 978-0-12-820484-9).

Conference Organization/ Presentations

### National /International Conferences/Symposia/Workshop/Training/webinar organized:

- Organizing committee member of three days International conference on "Integrative Chemical Sciences for Health and Environment-2023 (ICHE-2023)" organized by Department of Chemistry, Deshbandhu College, University of Delhi, 6<sup>th</sup> -8<sup>th</sup> October 2023.
- Organizing committee member of two days National symposium on "Potential of start-ups in the field of Biological Sciences": Start -Up Awareness" organized by Department of Zoology, Deshbandhu College, University of Delhi, 12<sup>th</sup> -13<sup>th</sup> September 2023.
- 3. Organizing committee member of International Conference ICNPHH-2022, organized by Department of Zoology, Deshbandhu College, University of Delhi, 4<sup>th</sup> -6<sup>th</sup> November 2022.
- 4. Co-Coordinator, Resonance, Annual festival of Department of Chemistry, Deshbandhu College, 10<sup>th</sup> -11<sup>th</sup> November 2022.
- 5. Organizing Committee Member, Pradeepan-5, Diwali Mela organized by NSS Unit, Deshbandu College, University of Delhi, 18th October 2022.
- 6. Organizing committee member of 70th Foundation day celebration program of Deshbandhu College, 3rd August 2022 (Gift distribution Committee).
- Organizing committee member of 131<sup>st</sup> birth anniversary celebration of Dr B.R. Ambedkar, organized by SC/ST, OBC Cell and Economic weaker section of Deshbandhu College, University of Delhi on, 18<sup>th</sup> April 2022.
- 8. Organizing committee member of International e-Conference ICRACS-2022, organized by Department of Chemistry, University of Delhi, 8<sup>th</sup> -9<sup>th</sup> April 2022.
- 9. Co-Convenor in International Symposium "Chemical Wisdom by Her" Organized by Department of Chemistry, Deshbandhu College (DU) held on 31st January, 2022 through online mode.
- 10. Participated as Judge of poster presentation session in International Symposium "Chemical Wisdom by Her" Organized by Department of Chemistry, Deshbandhu College (DU) held on 31st January, 2022 through online mode.
- 11. Organizing Committee Member in "Lecture III : Integrated Approach for Molecular Imaging" held on February 28, 2022 on the occasion of National Science Day, , organized by Department of Chemistry, under the aegis of IQAC & DBT Star College Scheme, Deshbandhu College held on February 28, 2022.

- 12. Co-convener of webinar on the topic of 'Reflections of Indian Knowledge System: Heritage, Culture, Society and Science', organised by Deshbandhu College and IQAC under the aegis of Azadi ka amrit Mahotsav on 29<sup>th</sup> October 2021.
- 13. Organizing committee member of webinar on the topic of "Technical Writing Skills and its Future Prospects", Organized by Wall Magazine, Department of Chemistry, Deshbandhu College, University of Delhi, on 23<sup>rd</sup> July, 2021.
- 14. Organizing committee member in "Lecture II: What has science done for our society?" under Motivational Lecture Series, organized by Department of Chemistry, under the aegis of IQAC & DBT Star College Scheme, Deshbandhu College held on October 21, 2021.
- 15. "Program coordinator" in the webinar on "Infrared Spectroscopy : Fundamentals And Applications " organised by Department of Chemistry, Deshbandhu College, on 8th April, 2021.
- 16. Moderator of 2<sup>nd</sup> Technical session of International e-Conference ICRACS-2022, organized by Department of Chemistry, University of Delhi, 8<sup>th</sup> -9<sup>th</sup> April 2022.
- 17. Chairperson of 2<sup>nd</sup> poster presentation session of International e-Conference ICRACS-2022, organized by Department of Chemistry, University of Delhi, 8<sup>th</sup> -9<sup>th</sup> April 2022.
- 18. Teacher coordinator of five events under music society timbre of Sabrang, 2022, (cultural committee) of Deshbandhu College.

#### **Paper Presented (Oral Presentation)**

- 1. Synthesis and characterization of Gemcitabine clay polymer nanocomposites for oral delivery applications. In the conference ICNPHH -2022, second International conference on natural products and human health-2022. Organized by Deshbandhu College, University of Delhi-110019, on 4<sup>th</sup> -6<sup>th</sup> November 2022.
- Delivered a talk on Significance of Online Education and Intellectual Property Rights in NEP 2020, National Conference on National Education Policy: Implementation, Challenges, Opportunities and Probable Outcomes (With special reference to University of Delhi) Organised by Deshbandhu College, University of Delhi In association with ICSSR 14th May, 2022
- 3. Delivered a talk on the topic of Fire Hazards and Safety Measures in Chemistry Laboratory in "Skill Up", a three day workshop on Laboratory safety and management for chemistry lab staff, organized by Department of Chemistry, under the aegis of IQAC & DBT Star College Scheme, Deshbandhu College held on 22-24 December 2021.
- 4. Developement of Surface Modified Montmorillonite-PLGA Nanocomposites for Oral and Sustained Delivery of Insulin, Seema and Monika Datta, 54th Annual Convention of Chemists, organized by Indian Chemical Society and Uka Tarsadia University, Bardoli, Gujrat, India, 23rd December- 25th December 2017.

- Montmorillonite: a naturally occurring clay mineral for the extended release of an antihypertension drug. Seema and Monika Datta, National Conference On Industrial Materials, organized by Research and Technology Development Centre, Sharda University, Greater Noida, Uttar Pradesh, India, 21-22 October 2016.
- 6. Delivery vehicle for the oral administration of Insulin: Development of Montmorillonite PLGA nanocomposites as drug delivery vehicle. Seema Lal and Monika Datta, 9th World Drug Delivery Summit, organized by Conference Series.com, at Crown Plaza, Kenner, New Orleans, Lousiana State, USA. 30 June-02 July 2016. (Young research forum award).
- 7. Montmorillonite and its polymer composites: A material of choice for extended release of an antihypertension drug, **Seema** and Monika Datta, UGC-sponsored National conference in Chemistry, Environment and harmonious development organized by Department of Chemistry Shyam Lal College University of Delhi at India International Centre, Lodhi Road, New Delhi, 78 April 2016.
- Montmorillonite-PLGA nanocomposites as novel drug delivery vehicle for oral administration of insulin, Seema and Monika Datta, International Conference On Materials Science & Technology (ICMTech-2016),organized by VBRI Press and Department of Chemistry, University of Delhi, India, 01 -04 March, 2016.
- 9. Naturally occurring clay and its polymeric composites as drug delivery vehicles for sustained release of atenolol. **Seema** and Monika Datta, 52nd Annual Convention of Chemists organized by Indian Chemical Society and JECRC University, Jaipur, Rajasthan, India, 28-30 December 2015.
- 10. Montmorillonite and its polymer composites as a drug carrier for the extended release of Propranolol hydrochloride. Seema and Monika Datta, 3rd International Conference on Nanostructured Materials and Nanocomposites, organized by Hindustan College of Science and Technology, Agra-Delhi NH # 2, Farah, Mathura 281122, U P India 12-14 December 2015.
- 11. Clay-Polymer Nanocomposites as an Oral Sustained Release Drug Delivery Vehicle for an Antihypertension Drug. Seema and Monika Datta Fiftieth annual Convention of Chemists, organized by Indian Chemical Society and Department of Chemistry and centre for advanced studies in chemistry, Panjab University, Chandigarh, India. 4-7 December 2013 (Received Professor G. Gopalarao Centenary Young Scientist Award).
- 12. Clay-Polymer Nanocomposites as a Drug Delivery System for an Anti Hypertension Drug. Seema and Monika Datta, International conference on Nanoscience and Nanotechnology (ICNANO-2011) organized by Department of Physics and Astrophysics, University of Delhi, 18- 21 December2011.
- 13. Clay Nanocomposites as Oral Drug Delivery System for an Anticancer Drug Seema and Monika Datta, IUPAC Sponsored International Conference on Nanomaterials and Nano technology, NANO2010.organized by KSR College of Technology, Tamilnadu, 13-16 Dec.2010.
- 14. Nanoclay as a Drug Delivery System, Seema, Rahul Singhal and Monika Datta, National Conference on Analytical Sciences in Energy and Environment, organized by IIP, Dehradun and Indian Society of Analytical Scientists, 19-21 November 2009. (Received Best oral presentation award).

## (Poster Presentations)

- 1. Surface Functionalized Montmorillonite-PLGA Nanobiocomposites: Prospects as a Carrier for Oral Delivery of Insulin, Seema and Monika Datta, International Conference on Natural Products and Human Health-2020 organized by Deshbandhu College, University of Delhi, Kalka Ji, February 27-29 (Received Best Poster Presentation award).
- Montmorillonite-Polymer Nanocomposites: Synthesis, Characterization and in vitro drug release studies. Seema and Monika Datta.20<sup>th</sup> ISCBC: International Conference on Chemistry and Medicinal plants in Transitional Medicine for Health Care. Organized by Department of Chemistry, University of Delhi, March 1- 4, 2014.
- Clay Polymer Nanocomposites: A Novel Material For Oral Extended Drug Delivery System, Seema, Shilpa Jain, Manpreet Kaur, Rahul Singhal and Monika Datta Emerging trend in development of drugs and devices (ETDDD-2013) Organized by University of Delhi, NASI (Allahabad), INSA (Delhi) and IAS (Bangluru), 21-23 January 2013, Delhi.
- 4. Clay Polymer Nanocomposites as a Carrier for Oral Controlled Release of an Anticancer Drug, Seema and Monika Datta, International Conference on Nanoscience + Technology 2012 (ICN+T2012) Organized by **European Physical Society at Sorbonne University, Paris, France, 23- 27 July 2012.**

- 5. Clay Polymer Nanocomposites as a Carrier for Oral Controlled Release of an Anticancer Drug, Seema and Monika Datta, International Conference On Green Technologies for Environmental Rehabilitation,Organized by Faculty of Engineering and Technology Gurukul Kangri University, Haridwar -Uttarakhand, India 11-13 February 2012.
- 6. Nanoclay as a Drug Delivery System, Seema, Rahul Singhal and Monika Datta. Indo-French Workshop cum International Conference on Nanoscience & Nanotechnolog Organized by Ansal Institute of Technology, Gurgaon, 12 -16 October 2009.

## Participation In National and International conferences/Seminars/Webinars

- 1. Participated in an International conference on crossroads of Chemistry, Biology & Atmospheric environment: A modern perspective, organized by Department of Chemistry, University of Delhi in collaboration with Academic Scientific Organizations on 26-28 February 2024.
- 2. Participated in an International conference on Resurgent Bharat on the Global Canvas, organized by Shaikshik Foundation in collaboration with Shivaji College, University of Delhi and National Council for Promotion of Sindhi Language at Ambedkar International Centre, 15, Janpath Road, Windsor Place, New Delhi on 25-26 February 2024.
- 3. Participated in special lectures on the occasion of Centuary of Chemistry at the University of Delhi at Fostering Sustainable Catalysis "FSC -2024" organized by Department of Chemistry, University of Delhi and Maharaja Surajmal Brij University, Bharatpur, Rajasthan, on 19-20 January 2024.
- Participated in the online lecture entitled "Supramolecular Chemistry for the Real World –Synthetic Receptors for Carbohydrates-By Prof. Anthony P. Davis" at International Lecture Series organized under Research and Development Cell Deshbandhu College held on 25<sup>th</sup> November 2023.
- 5. Attended the one day National symposium on TRENDS in Aptitude for skill development in Undergradate Research (TREASURE) conducted under the aegis of The National academy of Sciences, India (NASI) – Delhi Chapter & IEEE Electron Device Society (EDS) - Delhi Chapter, Organized by Science Foundation Committee & DBT Star College Scheme, DDU College, University of Delhi on 20<sup>th</sup> September 2023.
- Participated in the two days National symposium on "Potential of start-ups in the field of Biological Sciences": Start -up Awareness" organized by Department of Zoology, Deshbandhu College, University of Delhi, 12<sup>th</sup> -13<sup>th</sup> September 2023.
- 3. Participated in the webinar on "Evolution of Ethics in the Changing World" organised by Deshbandhu College, University of Delhi and Pettigrew College, Manipur University under the aegis of Vidya Vistar Scheme on April 22, 2023.
- Attended webinar on the topic of "Omega -3 polyunsaturated fatty acids from microalgae" organized by Deshbandhu College, University of Delhi and Pettigrew College, Manipur University under the aegis of Vidya Vistar Scheme on April 1<sup>st</sup> 2023.
- 5. Participated in a webinar on Gender Sensitivity: Roles and responsabilities" organized by Deshbandu College, University of Delhi under the aegis of Vidya Vistar Scheme, IQAC and ICC on July 2, 2022.
- 6. Participated in a Two days International Conference (virtual) on New trends in cheical research (ICNTCR-2022) organized by Department of Chemistry, SUS, Govt. College, Matak Majri, Karnal on 29-30 April 2022.
- 7. Participated in International Symposium "Chemical Wisdom by Her" Organized by Department of Chemistry, Deshbandhu College (DU) held on 31st January, 2022 through online mode.
- 8. Participated in "Lecture III : Integrated Approach for Molecular Imaging" under Motivational Lecture Series, organized by Department of Chemistry, under the aegis of IQAC & DBT Star College Scheme, Deshbandhu College held on February 28, 2022 on the occasion of National Science Day.
- 9. Attended webinar on stress Management and building Resilence organized by Deshbandhu College and Pettigrew College under the aegis of Vidya Vistar Scheme on 28, January 2022.
- 10. Participated in "Lecture II : What has science done for our society?" under Motivational Lecture Series, organized by Department of Chemistry, under the aegis of IQAC & DBT Star College Scheme, Deshbandhu College held on October 21, 2021.
- 11. Participated in Indo-US webinar and lecture series, organized by Department of Chemistry, Jamia Millia Islamia under the aegis of Ministry of Education, Govt. of India in collaboration with Texas A & M University, USA, June 1-9, 2021.

- 12. Participated in two days International conference on "Rethinking science for sustainable development", organized by Rajdhani College, University of Delhi, India, held on April 20-21, 2021.
- 13. Attended the webinar on "Infrared Spectroscopy: Fundamentals and Applications" organized by Department of Chemistry, Deshbandhu College, on 8th April, 2021.
- 14. Webinar on "Rational Approaches in Drug Design and Development" under International Lecture Series entitled "Multifaceted Chemistry: An ever-evolving domain of science" organized by Department of Chemistry, Deshbandhu College, on March 20<sup>th</sup>, 2021.
- 15. Webinar on "Crossing biological barriers smart modalities to improve performance of polymer nanocarriers" under International Lecture Series entitled "Multifaceted Chemistry: An ever-evolving domain of science" organized by Department of Chemistry, Deshbandhu College, on March 7<sup>th</sup>, 2021.
- 16. Webinar on "Nano-therapeutics: Future of Personalised Nanomedicines" under International Lecture Series entitled "Multifaceted Chemistry: An ever-evolving domain of science" organized by Department of Chemistry, Deshbandhu College, on February 14<sup>th</sup>, 2021.
- 17. Attended an online special lecture on Scittons and Scitoonics: Learn and enjoy science organized by Chemical Society Resonance, Department of Chemistry, Deshbandhu College, under the aegis of IQAC and DBT star college scheme, on 28<sup>th</sup> January 2021
- 18. Attended online lecture on Sir Acharya P.C. Ray, under 'Motivational Lecture series' in the 'Remembrance of Indian Legendary Chemists' under the aegis of IQAC and DBT star college scheme, organized by Department of Chemistry, Deshbandhu College, University of Delhi on 28<sup>th</sup> January 2021 at 10.30 a.m.
- 19. Precipitated in Lecture-Cum-Virtual Lab Visit on "Synthetic Biology And Biotechnology- A Tool For Shaping Human Future" organized by Department Of Zoology, Deshbandhu College, under the aegis of IQAC & DBT star college scheme on October 31<sup>st</sup>, 2020.
- 20. Participated in International Webinar Lecture Series on "Non-Invasive Cancer Diagnosis And Prognosis" organised by Biospark, Department of Biochemistry, Deshbandhu College, University of Delhi on 17th October, 2020.
- 21. Attended online inaugural lecture on "Functional Nano emulsions and their Friccohesity for sustainable applications", organized by DBC@Chem alumni club under the aiges of DBT star College scheme in collaboration with IQAC Deshbandhu College on October 10<sup>th</sup>, 2020.
- 22. participated in the two days webinar on "नई शक्षा नीŬत एवंआत्मŬनभर्भर भारत: अवधारणाएं और चुनौŬतयां" organized by NSS UNIT, Deshbandhu College, University of Delhi, on 17th and 18th August, 2020
- 23. Completed E-Quiz to create General Awareness on Health and Covid-19, organized by Kalindi College, in collaboration with World University Service, Delhi University Committee on July 12<sup>th</sup> 2020.
- 24. Webinar on "Awareness on good menstrual hygiene management, stigmas and social practices" organised by the Women Development Cell (under the aegis of IQAC), Deshbandhu college, University of Delhi on May 28, 2020.
- 25. International Webinar on "Endofullerenes: Nano-scale test tubes for single molecules and atoms", organized by The National Academy of Sciences, India (NASI) Delhi Chapter- & MHRD-Institution Innovation Council (IIC) Deen Dayal Upadhyaya College Chapter (University of Delhi), on 8th June 2020.
- 26. National Webinar on "Preventative healthcare diagnostic platforms based on Micro-Nanotechnologies" organaised by Department of Science, Lady Irwin College on 30th May 2020.
- 27. Two day international webinar on "Prevalent Crisis Triggered by the Covid-19 Pandemic and its Appraisal" organised by Department of Chemistry & Biomedical Science of Bhaskaracharya College of Applied Sciences, on 18-19th May 2020 through Google Meet.
- 28. International conference of Human Rights, National and International issues and challnges organized by Deshbandhu College, University of Delhi at Dr. Ambedkar International Centre, 15 Janpath Road, Windsor Place, New Delhi, 22-23February 2020.

- 29. International conference of Bhartiya Women, Past, Present and Future, organized by Shaikshik Foundation, deshbandhu College (DU) and Chaudhary Bansi Lal University, 23-24 February 2019, NDMC, Convention Center, Parliament Street, New Delhi.
- 30. National Conference on the Technical Terminology in Science Teaching, organized by Deshbandhu College, University of Delhi, October, 26-27, 2017.
- 31. Indo-German workshop on "New Perspectives for Nano Carriers In Biomedical Applications", Organized by Department of Chemistry, Delhi University, 14 January 2013.
- 32. National Symposium on Innovations in Polymers towards Sustainability and Growth, Organized by Bhaskaracharya College of applied sciences, Delhi University, 2-3 March 2012.
- 33. International Symposium on Recent Advances in "Green Chemistry" and Chromatography Sciences" Organized by Indian Society of Analytical Scientists (Delhi Chapter) at Manav Rachna International University, Faridabad, 12-14 January, 2012.
- 34. Role of Analytical Techniques in Industries, Organized by Department of Chemistry, K. M. College, DU and Indian Society of Analytical Scientists, 21-22 January 2010.
- 35. National seminar on Open Source Drug Discovery and Development, Organized by University of Delhi, 19 February 2009.

### Workshops attended

- 1. Participated in National workshop on Air pollution and health impacts (Need of interdisciplinary interest] organized by department of Environmental sciences, Central University of Jammu, on 1st June 2022.
- Participated in the two days online workshop on chem draw and chem sketch software learning organized by ACS – International student chapter Lavoisier's association, Department of Chemistry, Faculty of Science, Shri Guru Gobind Singh Tricentenary (SGT) University on 28-29 January 2022.
- 3. Attended "Skill Up", a three day workshop on Laboratory safety and management for chemistry lab staff, organized by Department of Chemistry, under the aegis of IQAC & DBT Star College Scheme, Deshbandhu College held on 22-24 December 2021.
- 4. Participated in 3-Days Workshop on "Designing and development of e-resources for teaching and learning, organized by Rajdhani College, University of Delhi and obtained grade A, 22-24 June 2021.
- 5. Participated in Value Added Workshop: Nano Era: Nanotechnology for Global Sustainability, organized by Amity Institute of Nanotechnology, Amity University, Noida, U. P. INDIA, June 07th -11th 2021.
- 6. Participated in online National Workshop on Laboratory Safety Measures and Chemical Waste Management for Ecological and Environmental Shield, organised by Department of Chemistry, Rajdhani College, 16th April, 2021.
- 7. Participated in the four days Online Hands-on Workshop organized by Deshbandhu College under the aegis of IQAC and DBT Star College Scheme, on "Research Methodology" from April 1- 5, 2021.
- 8. Participated in Online National Workshop on Laboratory Safety Measures and Chemical Waste Management for Ecological and Environmental Shield on Friday, 16th April, 2021.
- 9. Completed 3-Days Workshop from 22-24 June 2021 on " Designing and development of e-resources for teaching and learning, organized by Rajdhani College, University of Delhi and obtained grade A.
- 10. Tech 4 Seva, National workshop on Technology outreach as an enabler for inclusive and sustainable development, organized by IIT Delhi, Vibha and Unnat Bharat Abhiyan at IIT Delhi, 10-12 August 2019.
- 11. National workshop on Skill Development to Build a Clean India, held on 7th 8th June 2018, organized by Deshbandhu College and ONGC in Deshbandhu college Kalka Ji, New Delhi.
- 12. National Workshop on "Advanced Analytical Techniques in Research & Development" Organized by Amity institute of applied sciences, Amity University, U. P. 20-21, Dec.2012.
- National Workshop on "Basis and Application of Spectroscopic Techniques", Organized by Department of Chemistry, Kirori Mal College, Delhi University, 5-6 Oct.2012.

- 14. Author Workshop on "How to Write for and Get Published in Scientific Journals and Publish Manuscripts", Organized by Springer and Edanz along with Jawaharlal Nehru University Central Library, held at University of Delhi 23 August 2012
- 15. Educational Course on Chromatography, organized by Thermo Fisher Corporation and Indian Society of Analytical Scientists (Delhi chapter) at Manav Rachna International University, Faridabad, 11th January 2012.
- 16. Fundamentals of HPLC with LC Solution Workstation, organized by Shimadzu Analytical (India) Pvt. Ltd. at CSC Delhi, 20-21 Dec. 2010.
- 17. Workshop on High Potential Liquid Chromatography, Organized by the Waters India Private Limited, 15 March 2010.
- 18. National workshop on Information Literacy & Competency, Organized by Delhi University Library system, Delhi University 23 Feb.2010.

## FDP/ Refresher course/ Orientation program completed

- Participated in One month faculty Induction Programm (21 February -19 March 2024) organized by TLC Ramanujan College under the Ministry of Education sponsored Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching PMMMNMT) scheme.
- Online TWO WEEK Faculty Development Program (equivalent to Refresher Course) on "Chemistry -The Catalyst for Change" and obtained Grade A+ organized by Teaching Learning Centre, Ramanujan College University of Delhi In collaboration with Department of Chemistry, Miranda House University of Delhi under the aegis of Ministry of Education Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, 14 – 28 July, 2021
- 3. ADD ON COURSE on Introduction to Forensic Science, organized by Department of Chemistry Hansraj College, University of Delhi, August 7- October 10, 2021.
- 4. One week online interdisciplinary Faculty Development Program on "Environmental Science and Public Health", organized by Department of Chemistry, Kirori Mal College, University of Delhi in collaboration with Mizoram University, Aizawl, PMMMNMTT, Ministry of Education, February 1-5, 2022.
- "Faculty Development Program on Development and Delivery of Moocs and E-content", jointly organized by the Central University of Haryana and Deshbandhu College, University of Delhi, 26<sup>th</sup> June to 1<sup>st</sup> July, 2020.

Research Projects (Major Grants/Research Collaboration)

• Awarded UGC Post doctoral fellowship on the project entitled "Clay-Polymer Nanocomposites: a new approach of oral administration for extended release of drugs".

Awards and Distinctions

- 1. First prize in three leg race competition in sports day organized by Shivaji College on 15<sup>th</sup> March 2024.
- 2. **Best Poster Presentation award** in an International Conference on Natural Products and Human Health-2020 organized by Deshbandhu College, Kalka Ji, at conference Centre University of Delhi, 27-29 February 2020.
- 3. Young Research Forum Award in 9th World Drug Delivery Summit held at Crown Plaza, New Orleans, Lousiana state, USA 30 June -2 July 2016.
- 4. **DBT International Travel Grant award** to present a research paper in 9th World Drug Delivery Summit held at Crown Plaza, New Orleans, Lousiana state, USA 30 June -2 July 2016.
- 5. **Post Doctoral Research Fellowship for women candidates**, sponsored by University Grants Commision (UGC), India, during session 2014-2015.
- 6. **Professor G. Gopalarao Centenary Young Scientist Award** in Fiftieth annual convention of chemists, Organized by Indian Chemical Society and Department of Chemistry and centre for advanced studies in chemistry, Panjab University, Chandigarh, India, 4-7 December 2013.
- 7. **DST International travel grant** award to present a paper in International conference on Nanoscience and technology held at Sorbonne University, Paris, France, 23-27 July 2012.

8.	Best oral presentation award in a national seminar on Energy and Environments, Organized by Indian Institute of Petroleum, Dehradun, and Indian society of analytical scientist (Delhi Chapter), 19-22
9.	November 2009. UGC (RGNF) junior research fellowship and senior research fellowship (April 2007- November 2012).
Associa	ion With Professional Bodies
•	Life Member of Indian Science Congress Association.
•	Life Member of Indian Society of Analytical Scientist (ISAS, Delhi Chapter).
•	Member of International Association of Advanced Materials.
Other A	
	Coordinator of the Students Activities:
1.	Organizing Committee Member, ICNPHH, International Conference organized by Deshbandu College, University of Delhi, 4-6 November 2022.
2.	Co-coordinator in Chemical Society fest "Resonance" organized by Department of Chemistry, Deshbandhu College, Kalkaji, on 10 <sup>th-11th</sup> November, 2022.
3.	Organizing Committee Member, Pradeepan-5, Diwali Mela organized by NSS Unit, Deshbandu College, University of Delhi, 18th October 2022.
4.	Co-coordinator in Chemical Society fest "Resonance" organized by Department of Chemistry, Deshbandhu College, Kalkaji, on 26 <sup>th–</sup> 27 <sup>th</sup> April, 2022.
5.	Teacher coordinator for essay writing competition held on the occasion of 131 <sup>st</sup> birth anniversary celebration of Dr B.R. Ambedkar, organized by SC/ST, OBC Cell and Economic weaker section of Deshbandhu College, University of Delhi on, 18 <sup>th</sup> April 2022.
6.	Teacher coordinator for debate competition during Synapse'22, organized under the auspices of Synergia on March 31 <sup>st</sup> 2022.
7.	Co-coordinator in Chemical Society fest "Resonance" organized by Department of Chemistry, Deshbandhu College, Kalkaji, on 8 <sup>th</sup> March, 2022.
8.	Co-ordinator of wall magazine "Re-active", hosted by Department of Chemistry (under DBT Star College Scheme) since 2019 to till date.
9.	Techer coordinator for study visit of B.Sc. (Prog) Industrial Chemistry students to NSIC, Okhla, February 2018.
10.	Techer coordinator for study visit of B.Sc. (Prog) Industrial Chemistry students to DBT Expo on 9 <sup>th</sup> -10 <sup>th</sup> June 2022.
11.	Teacher coordinator from Department of Chemistry for study visit to DBT Coordinator meet cum Task force meeting, DDU College, 4-6 August 2022.
12.	Received three certificates of appreciation as Evaluator for November- December OBE examination 2021.
	Received two certificates of appreciation as Evaluator for May- June OBE examination 2021.
	Coordinator, Music Society "Timbre" Deshbandhu College, University of Delhi since 2021 to till date.
	Working as Chemistry Department website committee member, Deshbandhu College since 2020 to till date.
	Working as extended IQAC committee member, Deshbandhu College since 2021.
17.	Working as DBT coordination committee member, Deshbandhu College
18.	Worked as 'Co-coordinator' in the Annual Fest of Chemical Society, Resonance'21 organized by Chemical Society, Department of Chemistry, Deshbandhu College on 13 & 15 April 2021.
19.	Worked as "Program coordinator" in the webinar on "Infrared Spectroscopy : Fundamentals And Applications" organised by Department of Chemistry, Deshbandhu College, on 8th April, 2021.
20.	Worked as Prospectus committee member for the academic session 2020-21, 2021-22 and 2022-23, Deshbandhu College.
21	Actively involved in the organization of Deshbandhu college's cultural festival, "Sabrang" (2017-2022).
	Participated as organizing member in the annual Chemical Society festival "Resonance" at Deshbandhu College, University of Delhi. (2017 - 2022).
23.	Worked as financial assistance committee member for academic year 2019-20, 2020-21 and 2021- 2022, 2022 -23, Deshbandhu College.
24.	Worked as editorial board member in a national workshop on skill development to build a clean India held at Deshbandhu College, University of Delhi (7-8 June 2018).
25.	Participated as Resource person in the INSPIRE Internship programme-2017 under DST, organized by Deshbandhu College, University of Delhi. (18 -22 December 2017).

- 26. Worked as Project associate on the UGC sponsored project entitled "nanoclay composite based drug delivery system For Oral sustained release: Challenges and prospectives, at Department of Chemistry, University of Delhi. (March 2014 July 2014).
- 27. Worked as Project associate on the DST sponsored project entitled "Feasibility study of polymer organo silicate nano composites for oral drug delivery system related to colon diseases" at Department of Chemistry, University of Delhi.(May 2008 November 2008).

Dome

**Signature of Faculty Member**