




KIRORI MAL COLLEGE, UNIVERSITY OF DELHI



Title	Prof.	First Name	Reena	Last Name	Saxena	Photograph
Designation	Professor					
Address	Department of Chemistry, Kirori Mal college, University of Delhi					
Phone No	Office	011-27667861				
	Residence	011-49148911				
	Mobile	9810241580				
Email	rsaxena@kmc.du.ac.in , reenasax@hotmail.com					
Web-Page						
Educational Qualifications						
Degree	Institution				Year	
PhD	INDIAN INSTITUTE OF TECHNOLOGY (IIT), DELHI				1996	
M.Sc. Chemistry	INDIAN INSTITUTE OF TECHNOLOGY (IIT), DELHI				1990	
B.Sc. (H) Chemistry	HINDU COLLEGE, UNIVERSITY OF DELHI				1988	
Career Profile						
<u>TEACHING (~22years)</u>						
<input type="checkbox"/> To develop innovative approaches to learning and teaching at different levels in undergraduate courses.						
<input type="checkbox"/> To play a significant role in the design, development and planning of modules and programmes within the subject area as required.						
<input type="checkbox"/> To provide timely feedback and assessment of coursework and examinations (Paper setter).						
1. Kirori Mal College, University of Delhi - Associate Professor (September 2012- till date)						
2. Kirori Mal College, University of Delhi - Assistant Professor (March 2006 – August2012)						
3. Kirori Mal College, University of Delhi - Lecturer (December 2005 – Feb2006)						
4. Hans Raj College, University of Delhi - Lecturer (September 2005- November2005)						
5. Daulat Ram College, University of Delhi - Lecturer (September 1999- August2005)						
<u>RESEARCH (~31 years)</u>						
<input type="checkbox"/> To conduct scholarly research and present their findings at National and International conferences.						
<input type="checkbox"/> Independent PhD supervisor to guide students.						
<input type="checkbox"/> To maintain a high quality record of regular and original research publications in peer-reviewed journals.						
1. Principal Investigator, SERB, DST Research Project August 2013 - July2016.						
2. Project Investigator, Two Innovation Project, University of Delhi						
3. Principal Investigator, DST Research Project (SERC) March 2010 - Feb2013.						
4. Co-Investigator, DST Project, Green Chemistry, Sept 2007-Sept2009.						
5. Research Scientist (Project) Feb, 1999 – May 1999, IIT, New Delhi.						
6. Research Associate (Part Time), July 1995 to Dec 1998, IIT, New Delhi.						
7. Senior Research Fellow (SRF) July1992-June1995, IIT, New Delhi.						
8. Junior Research Fellow (JRF) July1990-June1992, IIT, New Delhi.						

Administrative Assignments

To demonstrate academic leadership/administrative skill and an ability to lead and manage effectively.

1. Member, IQAC Committee, Kirori Mal College (2019-21)
2. Member, Development and Maintenance Committee Kirori Mal College (2019-21)
3. Member, Portal Committee Kirori Mal College (2019-21)
4. Convener, Research Committee, Department of Chemistry (2019-20)
5. Member, Purchase, Seminar, Student-Faculty and Lab Management committee (2018-19)
6. Member, Seminar, Research and Lab Management committee (2017-18)
7. Teacher In-Charge, Department of Chemistry (2016-17)
8. NAAC Coordinator, Department of Chemistry, 2016
9. Member of Selection Panel (2016-17) to recruit Adhoc Assistant Professor in Department of Chemistry
10. Member of Selection Panel (2016-17)- to recruit temporary Laboratory staff in Department of Chemistry
11. Admission In charge BSc (H) Chemistry, (2016-17)
12. Member, Organizing committee, ETFC-2016, Department of Chemistry, Kirori Mal College
13. Superintendent, B.Sc. Examinations
14. Convener, Purchase and Seminar committee of Department of Chemistry, Kirori Mal College
15. Members of various committees of Department of Chemistry, Kirori Mal College
16. Member of Portal, Placement and Eco club committee of the college
17. Organized Seminars, and Annual Chemistry Festival of Department of Chemistry
18. Organized Summer projects on Green Chemistry
19. Development of Home Page of Chemistry Department- Portal Committee
20. Development of Web Magazine of Chemistry Department- Portal Committee

Areas of Interest / Specialization

- Analytical, Physical and Green Chemistry
- Flow Injection Analysis system (FIA)
- Development of Hyphenated Analytical Technique (FIA-FAAS system)
- Metal determination and Chromium speciation using FIA-FAAS System (Pb, Cd, Cu, Zn and Cr)- The heavy metals are enriched from various industrially contaminated water samples with the help of a pretreatment based on flow-injection solid phase extraction (FI-SPE), and are simultaneously detected by FAAS.
- Synthesis of Amberlite XAD-2/16, Dowex optipore, Based Chelating Resins and functionalized Multiwalled Carbon nanotubes
- Nanomaterials for removal of Organic contaminants
- Green synthesized nanomaterials based Colorimetric sensors
- Electrochemical Sensors for metal ions

Subjects Taught

- Physical Chemistry
- Applications of Computers in Chemistry
- Quantum Mechanics
- Molecular Spectroscopy
- Phase Equilibria

- Chemical Kinetics
- Thermodynamics

Research Guidance

- PhD Degree awarded - Four
- PhD students registered -Two
- PhD students registered - Two, as Co Supervisor
- Project Investigator of Two DU Innovation project- Supervised and guided 20 undergraduate students.

Publications Profile

a. Research Papers – 42

1. "Asparagine Functionalized MWCNTs for Adsorptive Removal of Hazardous Cationic Dyes: Exploring Kinetics, Isotherm and Mechanism" Megha Saxena, Amit Lochab and **Reena Saxena**, **Surfaces and Interfaces, Elsevier**, 2021, 25 101187
2. "Recent advances in carbon-based nanomaterials as electrochemical sensor for toxic metal ions in environmental applications. Amit Lochab, Raksha Sharma, Siddharth Kumar and **Reena Saxena**, **Materials Today: Proceedings, Elsevier**, 2021, 45P3, 3741-3753
3. "Green Synthesized Nanomaterial-based Colorimetric Sensors for Detection of Environmental Toxicants". Megha Saxena, Khyati Jain and **Reena Saxena**, **ChemNanoMat, Wiley**, 2021,7(4), 392-414.
4. "Efficient Lead preconcentration using two chemically functionalized carbon nanotubes in Hyphenated Flow Injection- Flame Atomic Absorption Spectrometry System" Sonam Bajaj, Vanshika Jain, Niharika Sharma, Shelja Tiwari, **Reena Saxena**, **Journal of Chromatography A, Elsevier**, 2021, 1638, 461888.
5. "Thiol-functionalized multiwall carbon nanotubes for electrochemical sensing of thallium" AmitLochab. Kajal Jindal, Monika Tomar, Vinay Gupta, **Reena Saxena**, **Materials Chemistry and Physics, Elsevier**, 2021,259, 124068
6. "Highly Efficient and Rapid Removal of a Toxic Dye: Adsorption Kinetics, Isotherm, and Mechanism Studies on Functionalized Multiwalled Carbon Nanotubes." Megha Saxena, Niharika Sharma, and **Reena Saxena**, **Surfaces and Interfaces, Elsevier**, 2020, 21, 100639.
7. "Comparative insight into the performance of two different amine functionalized CNTs for the chemical speciation of chromium", N. Sharma, S. Tiwari, **R. Saxena**, **Chemistry Select, Wiley**, 2020, 5, 6415 –6423
8. "Recent Progress in Nanomaterials for Adsorptive Removal of Organic Contaminants from Wastewater", **Reena Saxena**, Megha Saxena, and Amit Lochab, **Chemistry Select, Wiley**, 2020, 5, 335 – 353
9. "Rapid on-line solid phase enrichment using polytetrafluoroethylene beads for chromium speciation in contaminated real water samples", Niharika Sharma, Shelja Tiwari, **Reena Saxena**, **International Journal of Environmental Science and Technology**, 2019, 16(1), 383-390.
10. "A Review on Nanomaterials as Solid Phase Extractants for Determination of Lead in Environmental Samples" **Reena Saxena**, Kajal Madaan, Saloni Bansal, Megha Saxena, Niharika Sharma, **IOSR Journal of Applied Chemistry**, 2018, 11(9), 27-38.

11. "Chromium Speciation in Contaminated Water Samples Using PTFE Beads Packed Minicolumn and FI-FAAS Determination" Shelja Tiwari, Niharika Sharma, and **Reena Saxena**, **Atomic Spectroscopy**, 2018, 39(4), 151- 157.
12. "Chemically Modified Polymeric Solid Support for Chromium(III) Speciation in Industrially Polluted Water Samples and Determination by FI-FAAS", Niharika Sharma, Shelja Tiwari, **Reena Saxena**, **Atomic Spectroscopy**, 2017, 38(6), 186-193.
13. "Applications of Amberlite XAD based Chelating resins in Online Pre concentration of metal ions", PremLata Meena, **Reena Saxena**, **IOSR Journal of Applied Chemistry**, 2017, 10(6), 44- 54.
14. "Modified Carbon nanotubes in On-line speciation of Chromium in real water samples using Hyphenated FI-FAAS", Shelja Tiwari, Niharika Sharma and **Reena Saxena**, **New Journal of Chemistry, RSC**, 2017, 41,5034-5039.
15. "Online Preconcentration Procedure for Chromium Speciation and Determination in Industrial Water Samples Using Flame Atomic Absorption Spectrometry", Shelja Tiwari, Niharika Sharma, **Reena Saxena**, **Analytical Sciences**, 2016, Vol 32, 1321-1325.
16. "Phytoremediation of Lead and Zinc In Polluted Yamuna Soil Using Helianthus Annuus-A New Green Technology", Rajni Gupta, Gaurav Chugh, Rakesh Kumar, **Reena Saxena**, **International Journal of Advance Research In Science And Engineering** , IJARSE,5(7), 2016,268-276.
17. "Application of Brassica Juncea (Indian Mustard) for Phytoremediation of Lead and Zinc In Polluted Yamuna Soil", Rajni Gupta, Gaurav Chugh, Rakesh Kumar, **Reena Saxena**, **International Research Journal of Natural and Applied Sciences**, 3(8), 2016,163-174.
18. "Lead Preconcentration on Modified Solid Phase Extractant and Determination in Industrial Water Samples using Flame Atomic Absorption Spectrometry", Niharika Sharma, Preeti Garg, **Reena Saxena**, **International Journal of Engineering Technology Science and Research**, ISSN 2394 –3386, Volume 3 Issue 2 February 2016,72-79.
19. "A Solid Phase Extraction Method for Determination of Cadmium in Industrial Water Samples using Flame Atomic Absorption Spectrometry", Shelja Tiwari, Jyoti Ruhil, **Reena Saxena**, **International Journal of Engineering Technology Science and Research**, ISSN 2394 – 3386, Volume 3 Issue 2 February 2016,65-70.
20. "On-line speciation of chromium using modified chelating resin and determination in industrial water samples by flame atomic absorption spectrometry", Shelja Tiwari, Niharika Sharma, **Reena Saxena**, **New Journal Of Chemistry**, 2016,40,1412-1419.
21. On-line solid phase extraction method based on flow injection-FAAS using 1,10- phenanthroline modified chelating resin for chromium speciation in industrial water samples, Niharika Sharma, Shelja Tiwari and **Reena Saxena**, **RSC Adv.**, **RSC**, 2016, 6, 10775-10782.
22. "Determination of Copper in Industrial Water by Innovative Flow Injection Flame Atomic Absorption Spectrometry", **Reena Saxena**, PremLata Meena, Shelja Tiwari. **Instrumentation Science & Technology**, **Taylor and Francis**, 2016, VOL. 44, NO. 2,210–222.
23. "Chromium Speciation Using Flow-injection Preconcentration on Xylenol Orange Functionalized Amberlite XAD-16 and Determination in Industrial Water Samples by Flame Atomic Absorption Spectrometry", **Reena Saxena**, Niharika Sharma, Shelja Tiwari. **Analytical Sciences**, 2015, Vol 31, 1303-1308.
24. "A review on application of hyphenated flow injection system for determination of heavy metal ions in water samples", Shelja Tiwari, Niharika Sharma, **Reena Saxena**, **International Journal of Advanced Technology in Engineering and Science**, 2015, 3(1),692-702.
25. "Ion chromatographic techniques for determination of inorganic analytes in biological, environmental and industrial samples- A Review", Niharika Sharma, Shelja Tiwari, **Reena Saxena**, **International Journal of Science Technology and Management**, 2015, 4(1),622-631.

26. "Flow-injection solid phase extraction using Dowex Optipore L493 loaded with dithizone for preconcentration of chromium species from industrial waters and determination by FAAS", **Reena Saxena**, Shelja Tiwari, Niharika Sharma **RSC Adv.**, **RSC**, 5. 2015, 69196– 69204.
27. "A Rapid Analytical Method Using Flow Injection Preconcentration of Zinc on Dithizone Impregnated on Amberlite XAD-2 and its Determination in Water Samples by FAAS", PremLata Meena, **Reena Saxena** and Niharika Sharma, **International Journal of Agriculture and Food Science Technology.**, ISSN 2249-3050, 5(4), 2014,287-296
28. "Flow Injection On-Line Preconcentration of Trace Zinc(II) Ions in Water Samples Using a Synthesized 8-Hydroxyquinoline Functionalized Amberlite XAD-2 Resin and Determination by Flame Atomic Absorption Spectrometry", **Reena Saxena** and PremLata Meena, **Atomic Spectroscopy**, Vol. 35(4), 2014,154-162.
29. "A green approach using xylenol orange anchored amberlite xad-16-a new sorbent material for on- line solid phase extraction of cadmium in water samples by flame atomic absorption spectrometry", Suneeti Singh, **Reena Saxena**, **International Journal of Advanced Technology in Engineering and Science** , 2(7), 2014, 350-361.
30. "On-line preconcentration and determination of lead in water by flow injection- flame atomic absorption spectroscopy using Amberlite XAD-16functionalized with xylenol orange", Suneeti Singh, **Reena Saxena**, **International Journal of Advance Research In Science And Engineering** , IJARSE, 3(5), 2014,172-184.
31. "Application of Amberlite XAD-2 functionalized with 8-hydroxyquinoline in an online system for determination of copper in water by FAAS", PremLata Meena and **Reena Saxena**, **International Journal of Advance Research In Science And Engineering**, IJARSE, 3(4), 2014,47-58.
32. "Flow injection online solid phase extraction system using Amberlite XAD-16 functionalized with 8-hydroxyquinoline for copper and zinc determination by flame atomic absorption spectrometry", **Reena Saxena*** and PremLata Meena, **RSC Adv.**, **RSC**, 4, 2014, 20216-20225.
33. "On-line preconcentration and determination of Cd(III) in water by Flow Injection-Flame Atomic Absorption Spectrometry (FI-FAAS) Using salicylic acid functionalized Amberlite XAD-2 resin-packed minicolumn", **Reena Saxena** and Suneeti Singh, **Atomic Spectroscopy**, Vol 34(5), Sep/Oct 2013, 155 -163.
34. "Determination of Lead in Water Using Amberlite XAD-2 Functionalized with Xylenol Orange Resin as Column Material for On-line Flow Injection- Flame Atomic Absorption Spectrometry Analysis", **Reena Saxena**, Suneeti Saxena, and Praveen Sarojam, **Atomic Spectroscopy**, Vol. 33(3), 2012,83-91.
35. "Flow injection preconcentration system using a new functionalized resin for determination of Cd(II) by FAAS", **Reena Saxena**, Suneeti Singh, **Indian Journal of chemistry**, 51A, 2012, 1567- 1573.
36. "Modeling of heavy metal mobility in Delhi soils before and after remediation with rockphosphate using sequential extraction, TCLP and PBET", Mamta Chhabra Sharma , **Reena Saxena**, Sandeep K Sharma, Suniti Singh, **Asian Journal of Water, Environment and Pollution**, 8, 2011,25-33.
37. "Green approach of in - situ Chemical Immobilization of Lead in metal - Contaminated Soils of NCT of Delhi Using Coal Fly Ash", Mamta Chhabra Sharma, **Reena Saxena**, Sandeep K Sharma and Suneeti Saxena Singh, **International Journal of Applied Chemistry (IJAC)**, 5(2), 2009, 63- 71.
38. "Green Approach Of Chemical Immobilization Of Lead In Metal -Contaminated Soils Of NCT Of Delhi Using Rock Phosphate", Mamta Chhabra Sharma, **Reena Saxena**, Sandeep K.Sharma, Suneeti Singh, **And Environmental Science: An Indian Journal**, 4(5), 2009, 226-231.
39. "Green Approach Of Chemical Immobilization Of Lead In Metal - Contaminated Soils Of NCT Of Delhi Using Rock Phosphate And Coal Fly Ash", Mamta Chhabra Sharma, **Reena Saxena**, Sandeep

K.Sharma, Suniti Singh, **Environmental Science** : An Indian Journal, 4(5), 2009, 220- 225.

40. "Pyrocatechol Violet immobilized Amberlite XAD-2: synthesis and metal-ion uptake properties suitable for analytical applications", Reena **Saxena**, Ajai K. Singh, 1996, **Analytica chimica Acta, Elsevier**, 340(1), 1997, 285-290.
41. "Salicylic Acid Functionalized Polystyrene Sorbent Amberlite XAD-2. Synthesis and Applications as a Preconcentrator in the Determination of Zinc(ii) and Lead(ii) by Using Atomic Absorption Spectrometry" **Reena Saxena** and Ajai K. Singh, **Analyst, RSC**, 120,1995,403-405.
42. "Synthesis of a chelating polymer matrix by immobilizing Alizarin Red-S on Amberlite XAD-2 and its application to the preconcentration of lead(II), cadmium(II), zinc II) and nickel(II)", **Reena Saxena**, Ajai K Singh, S.S. Sambi, **Analytica Chimica Acta, Elsevier**, 295,1994,199-204.

b. Books- Nil

c. Chapter in books- 4

1. "Recent Advances and Role of Computational Chemistry in Drug Designing and Development on Viral Diseases" Amit Lochab, Rakhi Thareja, Sangeeta D Gadre and **Reena Saxena**, **Book name: Frontiers in Computational Chemistry**, Volume 5, 2020, **Bentham Sciences**.
2. "Magnetite Carbon Nanomaterials for Environmental Remediation" Saxena R., Lochab A., Saxena M. (2021) In: Jawaid M., Ahmad A., Ismail N., Rafatullah M. (eds) Environmental Remediation Through Carbon Based Nano Composites. Green Energy and Technology. Springer, Singapore. https://doi.org/10.1007/978-981-15-6699-8_5
3. "Determination of Metal Contaminants in Beverages Using Solid Phase Extraction - Based Preconcentration and Subsequent Determination Using Spectro-Analytical Techniques", Niharika Sharma, Shelja Tiwari, **Reena Saxena**, **Book name: Emerging Trends and Developments In Beverage Science Elsevier**, Volume 17, 2019.
4. "Chromium speciation in water samples using various solid phase extractants and determination by Flame Atomic Absorption Spectrometry" Shelja Tiwari, Niharika Sharma, **Reena Saxena**, **Advances in Chemistry and Chemical Engineering**, 257-266, Editors: David N. Reinhoudt and Hongkai, WU, Research India Publications, Delhi, 2017, Book Code: ACCE, ISBN 978-93-84443- 47-4).

d. Articles/Research Paper in Books - Nil

e. Conference Proceedings - 22

1. "Enhanced Drug Adsorption and Anti-microbial Activity of Functionalized Multiwalled carbon nanotubes", A Virtual, 2nd International Symposium on Functional Nanomaterials in Industrial and Clinical Applications: Academy- Industry- Clinician Meet, 14th - 16th July, **2020**, University of Central Lancashire, UK, **Invited Lecture**, Megha Saxena, Disha Mittal, Richa, Kapinder, Anita K Verma and **Reena Saxena**
2. "Green Synthesized Nanomaterial based Colorimetric Sensors for Toxic Pollutants", A Virtual, 2nd International Symposium on Functional Nanomaterials in Industrial & Clinical Applications: Academic-Industry- Clinician Meet 14th to 16th July 2020, University of Central Lancashire, UK, **Poster presentation**, Megha Saxena, Sangeeta D Gadre, Khyati Jain and Reena Saxena
3. "Carbon based Nanomaterials as Electrochemical Sensor for Toxic Metal Ions in Environmental Applications" A Virtual, 2nd International Symposium on Functional Nanomaterials in Industrial & Clinical Applications: Academic-Industry- Clinician Meet 14th to 16th July 2020, University of Central Lancashire, UK, **Poster presentation**, Amit Lochab, Raksha Sharma, Siddharth kumar, and Reena Saxena.

4. **“Functionalized MWCNTs for efficient Removal of cationic dyes from wastewater”**, National conference on Nano/BioTechnology2019”, Special centre for Nanoscience, JNU & NII, New Delhi, Dec 19-21,2019 **Oral Presentation**
5. **“Modified Multiwall Carbon Nanotubes (MWCNT) based Electrochemical sensor for Thallium in water”**, **Electrochem 2019**, 26th -28th August 2019, University of Strathclyde, Glasgow, UK. **Oral Presentation**
6. **“Functionalized Nanomaterials For Detection And Removal Of Toxic Metal Ions”**, 6th Annual Conference On Nanomedical Sciences (**Isncon-2018**) & Chemistry Biology Interface Synergistic In New Frontiers (Cbisnf-2019) 7-9th January 2019, Vigyan Bhawan, New Delhi. **Oral Presentation.**
7. National Conference on Innovations in Sciences and Emerging Challenges in Health and Environment, Dept. of Chemistry, Daulat Ram College, March 20, 2018. **Poster Judge**
8. National Conference “Clean & Green Energy: The Chemical & Environmental Aspects”, Bhaskaracharya College of applied Sciences, February 16-17, 2017, University of Delhi. **Session Chair**
9. International conference on “Society of Environmental Toxicology and Chemistry Asia/Pacific 2016”, September 16-19, 2016 at Stephen Riady Centre, National University of Singapore. **Oral Presentation**
10. National Seminar on “Role of Analytical Sciences In Sustainable Development”, March 4-5, 2016, at Department of Chemistry, Hansraj College, University of Delhi. **Poster Presentation**
11. RSC Workshop on Chemistry for Tomorrow’s World, Dec 2-3, 2015 organized by University of Delhi, at Hotel Maidens, Delhi. **Oral Presentation**, Functionalized Multiwalled carbon nanotubes for heavy metal speciation in industrial water samples.
12. 4th National Symposium on Recent Advances in Analytical Sciences and Applications, Feb 9-10, 2015, Jamia Hamdard, New Delhi. **Poster Presentation** Online flow injection preconcentration system for copper determination in water samples by FAAS
13. 5th Asia Oceania Conference on Green and Sustainable Chemistry (AOC-5 GSC), Jan 15-17, 2015 at India Habitat Centre, New Delhi. **Poster Presentation**
14. International Conference on "Green Initiatives in Science & Technology (GIST-2015)", Jan. 15, 2015 at Department of Chemistry, Manav Rachna College of Engineering, Faridabad. **Poster Presentation**
15. International Workshop on “Green Initiatives in Energy, Environment & Health”, Organized by University of Delhi, Hotel Maidens, Delhi, Dec. 2-3, 2013. **Poster Presentation**
16. International conference on Interface between chemistry and environment, Ramjas College, University of Delhi, Delhi, Dec 13-14, 2012. **Poster Presentation**
17. International workshop on “Chemistry for a sustainable future”, MNIT, Jaipur, India, December 10-12, 2012. **Poster Presentation**
18. International Conference on Flow Analysis (FLOW ANALYSIS XII), Aristotle University of Thessaloniki, Greece 23-28 September, 2012. **Oral & Poster Presentation**
19. International Symposium on recent advanced in Green Chemistry & Chromatographic science, Manav Rachna International University, Faridabad, Jan 12-14, 2012. **Poster Presentation**

20. International Conference on Flow Injection Analysis(ICFIA-2011) Karakow, Poland 3-8 July, 2011. **Oral & Poster Presentation**
21. Conference on Revolution in Chemistry: Green Chemistry, Institute of Technology and Management, Gurgaon 19th December; 2008 – **Oral Presentation.**
22. Workshop on Green Chemistry Education for a sustainable future, University of Delhi. March 10, 2007. **Oral Presentation.**

Conference / Workshops/Training Organized- 18

1. National Webinar on Emerging Trends and Future Challenges in Chemical Sciences, **ETFC-2021**, Dept. of Chemistry, Kirori Mal College, March 4-5, 2021- Member, Seminar Committee
2. Biogala-21, The Life Science Society Festival at Kirori Mal College under DBT Star college scheme, Feb 25-26, 2021.
3. Organized Webinar on "**Innovative Solutions Of Chemistry For Better Health Care**", Department of Chemistry, Kirori Mal College, DBT Star college scheme, 8th February, 2021
4. Organized Webinar on "**Implementation of Domestic Violence and its effectiveness thereof**", IQAC, Kirori Mal College and National Commission for Women, 21st Dec, 2020
5. Organized Online Faculty Development Programme (FDP) on "**Innovation in Scientific Research Method**" at Kirori Mal College under DBT Star college scheme, 14-18th October 2020
6. Organized Webinar on "**Multifunctional Nanomaterials for Advanced Applications in Healthcare**" at Kirori Mal College under DBT Star college scheme, 16th September 2020
7. Organized Online Faculty Development Programme (FDP) on "**ICT: Instructional Design, Development & Learning Analytics**" at Kirori Mal College under IQAC & UGC Paramarsh Scheme, 24-30th July 2020
8. Organized Online Workshop on "**Yoga for Stress Management**" at Kirori Mal College under IQAC & UGC Paramarsh Scheme, 15-21st June 2020
9. Organized Online Hands on Workshop on "**Computational Chemistry and Molecular Modeling in Drug Design**" at Kirori Mal College under DBT Star college scheme, 19-20th May 2020
10. Organized National Conference on Emerging Trends and Future Challenges in Chemical Sciences **ETFC-2020**, Dept. of Chemistry, Kirori Mal College, January 10-11, 2020 at Conference Centre, University of Delhi, Delhi.
11. Organized Hands on Workshop on "**Computational Chemistry and Molecular Modeling in Drug Design**" at Kirori Mal College under DBT Star college scheme, 29th February 2020
12. Industrial Visit to Sun Pharma, Research and Development Centre, Gurgaon. 28th February 2020
13. Organized Chemistry society "**Inaugural Lecture Series**" Kirori Mal College under DBT Star college scheme, 30th September 2019
14. Organized Workshop on "**Basic Lab Instrumentation for UG Chemistry Lab**" for Lab Staff at Kirori Mal College under DBT Star college scheme, 26th June 2019
15. Organized Workshop on "**MS Office**" for Lab Staff at Kirori Mal College under DBT Star college scheme, 18-19th June 2019
16. Organized National Conference on Emerging Trends and Future Challenges in Chemical Sciences **ETFC-2016**, Dept. of Chemistry, Kirori Mal College, February 2016 at Conference Centre, University of Delhi, Delhi.
17. Organized "**DST-INSPIRE SCIENCE CAMP-2015**" Dec 21-25, 2015 at Kirori Mal College,

University of Delhi.

18. Organized **“DST-INSPIRE SCIENCE CAMP-2013”** Dec 21-25, 2013 at Kirori Mal College, University of Delhi.

Creation of ICT Mediated Teaching Learning Pedagogy and Content

NIL

Conference/Workshops/Training attended as Faculty Member- 54

1. A Virtual, 2nd International Symposium on Functional Nanomaterials in Industrial & Clinical Applications: Academic-Industry- Clinician Meet 14th to 16th July 2020, **University of Central Lancashire, UK.**
2. Emerging Trends and Future Challenges in Chemical Sciences (**ETFC- 2020**), 10-11 Jan,2020 organized by Kirori Mal College, University of Delhi.
3. National conference on Nano/BioTechnology2019”, **Special center for Nanoscience, JNU & NII, New Delhi**, Dec 19-21,2019
4. **Electrochem 2019**, 26th -28th August 2019, **University of Strathclyde, Glasgow, UK.**
5. 6th Annual Conference On Nanomedical Sciences (**Isnscon-2018**) & Chemistry Biology Interface Synergistic In New Frontiers (Cbisnf-2019) 7-9th January 2019, Vigyan Bhawan, New Delhi.
6. Computational spectroscopy: bridging theory and experiment, **Lake Como School of Advanced Studies, Villa del Grumello, Como, Italy**, September, 2018
7. **Electrochem - 2018**, RSC, 16-18 September 2018, **Lancaster University, UK**
8. National Conference on “Technological Empowerment of Women” commemorating the **International Women’s Day** at Vigyan Bhawan, New Delhi, March 8-9,2018.
9. ACS On Campus, **American Chemical Society**, University of Delhi, February 5, 2018.
10. International Conference on “Green Chemistry in Environmental Sustainability and Chemical Education-2016”, October 17-18, 2016 at Department of Chemistry, **Daulat Ram College**, University of Delhi.
11. International conference on “Society of Environmental Toxicology and Chemistry Asia/:Pacific 2016”, September 16-19, 2016 at Stephen Riady Centre, **National University of Singapore.**
12. National Seminar on “Role of Analytical Sciences In Sustainable Development”, March 4-5, 2016, at Department of Chemistry, **Hansraj College**, University of Delhi.
13. 2nd, “International Conference on Innovative Research in Engineering Science And Management (ESM-16)”, Feb 28, 2016, at India Habitat Centre, New Delhi,India.
14. 1st National Conference on Emerging Trends and Future Challenges in Chemical Sciences (**ETFC- 2016**), 3rd - 4th February 2016 organized by Kirori Mal College, University of Delhi, at Conference Centre, University of Delhi, Delhi.
15. **RSC Workshop** on Chemistry for Tomorrow’s World, Dec 2-3, 2015 organized by University of Delhi, at Hotel Maidens, Delhi.
16. “International Conference on Nascent Developments in Chemical Sciences Opportunities for Academia-Industry Collaboration”, Oct 16-18, 2015 at **BITS Pilani**, Pilani,Rajasthan.

17. "2nd International Conference on Science, Technology and Management", Sep 27, 2015 at **Delhi University**, Conference Centre, New Delhi.
18. 4th National Symposium on Recent Advances in Analytical Sciences and Applications, Feb 9-10, 2015, **Jamia Hamdard**, New Delhi.
19. 5th Asia Oceania Conference on Green and Sustainable Chemistry (AOC-5 GSC), Jan 15-17, 2015 at India Habitat Centre, New Delhi.
20. International Conference on "Green Initiatives in Science & Technology (GIST-2015)", Jan. 15, 2015 at Department of Chemistry, **Manav Rachna College of Engineering**, Faridabad.
21. International Congress on "Agriculture, Food Engineering and Environmental Sciences-Sustainable Approaches", Krishi Sanskriti, **JNU, New Delhi**, March 29-30, 2014.
22. 20th ISCB International Conference on "Chemistry and Medicinal Plants in Translational Medicine for Healthcare" Department of Chemistry, **University of Delhi**, Delhi, March 1-4, 2014
23. International Workshop on "Green Initiatives in Energy, Environment & Health", Organized by **University of Delhi**, Hotel Maidens, Delhi, Dec. 2-3, 2013.
24. Seminar on "Surface Analytical Techniques" organized by **Indian Society of Analytical Scientists (ISAS)-Delhi Chapter**, Hotel Comfort Inn, Faridabad, Aug 24, 2013.
25. International conference on Interface between chemistry and environment, **Ramjas College**, University of Delhi, Delhi, Dec 13-14, 2012.
26. International workshop on "Chemistry for a sustainable future", **MNIT, Jaipur**, India, December 10-12, 2012.
27. National workshop on "Basics and Applications of Spectroscopic Techniques", Kirori Mal College, University of Delhi, Delhi, Indian Society of Analytical Scientists (**ISAS-DC**), Oct 5-6, 2012.
28. International Conference on Flow Analysis (FLOW ANALYSIS XII), **Aristotle University of Thessaloniki, Greece** 23-28 September, 2012.
29. The Academic Congress, Enabling the Young: Redefining Education, **University of Delhi**, Sep 6-7, 2012.
30. International Symposium on recent advanced in Green Chemistry & Chromatographic science, **Manav Rachna International University, Faridabad**, Jan 12-14, 2012.
31. Workshop on Computational chemistry for Chemistry Educators, DS Kothari centre for Research & Innovation in Science Education, **Miranda House**, University of Delhi, Delhi, Nov 23-24, 2011.
32. International Conference on Flow Injection Analysis (**ICFIA-2011**) **Karakow, Poland** 3-8 July, 2011.
33. Seminar on Role of Analytical Technique in Biological and Environmental Sciences, Kirori Mal College, University of Delhi, Delhi, Indian Society of Analytical Scientists (**ISAS-DC**), January 27-29, 2011.
34. International Workshop on Sustainability and Water Quality (IWSWQ), organized by green chemistry network centre, Department of chemistry, **University of Delhi**, January 17-20, 2011.
35. Workshop on Chemistry Lab Safety Awareness organized by Institute of Life Long Learning, University of Delhi and Centre for Fire, Explosive & Environment Safety, **DRDO**, Ministry of Defense, August 31, 2010.
36. Workshop on Improvement of Chemistry Lab Safety Manual at the **institute of Life Long**

Learning, University of Delhi, August 3, 2010.

37. The 16th International Conference on Flow Injection Analysis (**16th ICFA**), **Pattaya, Thailand**, April 25-30, 2010.
38. Workshop on Application of Free/Open Source Software in Science Teaching and Research , **Acharya Narendra Dev College**, University of Delhi & NRCFOSS, Anna University, Chennai, April 14-15,2010.
39. National Workshop on Role of Analytical Technique in Industry- Indian Society of Analytical Scientist (ISAS) Delhi Chapter , **Kirori Mal college**, University of Delhi, Delhi, January 21-22, 2010.
40. 3rd Indo-Italian Seminar on Green Chemistry, Department of Chemistry, **University of Delhi**, Delhi, December 9th 2009.
41. Conference on Revolution in Chemistry: Green Chemistry, **Institute of Technology and Management, Gurgaon** 19th December; 2008.
42. INDO-US S& T FORUM Training Workshop on Green Chemistry, Delhi. Jan7-9, 2008.
43. National Symposium SCIENCE OF LIFE: THE NEW HOIRIZON **Miranda House**, University of Delhi Nov21-23, 2007.
44. Workshop on Green Chemistry Education for a sustainable future, **University of Delhi**. March 10, 2007.
45. Symposium on the applications of Nuclear Magnetic Resonance to Materials and Medicine, Department of Chemistry, **IIT, Delhi**, Nov 21,2006.
46. National workshop on challenges and opportunities in chemistry. Department of Chemistry, **Maitreyi College** University of Delhi September 22-23, 2006.
47. International Symposium on “Advances in Fingerprint Technology”, **SGTB Khalsa College**, University of Delhi. Feb, 2006.
48. **INDO-US** Workshop on Green Chemistry, **University of Delhi**. Jan 7-9, 2006.
49. Seminar on “Frontier Technologies in Chemical, Biological and Horticultural Sciences”, Indian society of Analytical Scientists (ISAS), Chemistry Department, **Kirori Mal College**, University of Delhi Dec 20,2005.
50. Symposium on “Emerging Areas in Chemistry” Department of Chemistry, **Hindu College** University of Delhi December 1-2, 2005.
51. One Day Seminar on Foundation Course Chemistry of the B.Sc. Programme, Department of Chemistry **University of Delhi**, October 10th2005.
52. National Seminar on “Recent Trends in Chemistry”, Department of Chemistry, **Maitreyi College** University of Delhi September 22-24, 2004.
53. **INDO-US S& T FORUM** Workshop on Green Chemistry, University of Delhi. November 17- 20, 2003.
54. Course on Municipal Solid Waste Management Systems, Foundation for Innovation and Technology Transfer (FITT), **IIT, DELHI**, April 12-16, 1999.

Invited Lectures/Resource Persons- 8

1. “**Conceptual Approach of Presenting your Scientific Research**”, **Online Lecture Series**, Chemistry Society, Kirori Mal college, University of Delhi, **Invited Lecture**, April 2, 2021.
2. **Global Water Congress- e-Conference**, Environment and Social Development Association (ESDA), 10th Oct ,2020, **Session Chair**, Judge, Oral Presentation

3. **“Enhanced Drug Adsorption and Anti-microbial Activity of Functionalized Multiwalled carbon nanotubes”**, A Virtual, 2nd International Symposium on Functional Nanomaterials in Industrial and Clinical Applications: Academy- Industry- Clinician Meet, 14th - 16th July, **2020**, University of Central Lancashire, UK, **Invited Lecture**, Megha Saxena, Disha Mittal, Richa, Kapinder, Anita K Verma and **Reena Saxena**
4. National Conference on Innovations in Sciences and Emerging Challenges in Health and Environment, Dept. of Chemistry, Daulat Ram College, March 20, 2018. **Poster Judge**
5. National Conference “Clean & Green Energy: The Chemical & Environmental Aspects”, Bhaskaracharya College of applied Sciences, February 16-17, 2017, University of Delhi. **Session Chair**
6. International conference on “Society of Environmental Toxicology and Chemistry Asia/Pacific 2016”, September 16-19, 2016 at Stephen Riady Centre, National University of Singapore. **Oral Presentation**
7. International Conference on Flow Analysis (FLOW ANALYSIS XII), Aristotle University of Thessaloniki, Greece 23-28 September, 2012. **Oral & Poster Presentation**
8. International Conference on Flow Injection Analysis (ICFIA-2011) Karakow, Poland 3-8 July, 2011. **Oral & Poster Presentation**

Research Projects (Major Grants/Research Collaboration)- 6

1. **DBT Star college scheme** (Chemistry Coordinator), Department of Biotechnology, 2019-2022 (Rs. 82 Lakhs)
2. To assess the Adsorption Efficiency and Antimicrobial potential of Functionalized Multiwalled Carbon nanotubes for removal of Lead from water samples (completed) University of Delhi (**Innovation Project-302**), Oct 2015- Oct 2016, (Rs.5, 50,000).
3. On-line preconcentration using modified resins for speciation of Cr (III) and Cr (VI) and determination in water by Flame Atomic Absorption Spectrometry and Ion Chromatography (completed), **SERB (DST)**, Aug 2013 to July 2016 (Rs.23, 48,000).
4. Flow injection online preconcentration with column of newly designed chelating resins for metal ions Industrial effluents, (completed), **DST (SERC)**, March 2010 to Feb 2013, (Rs. 31, 82,000).
5. Phytoremediation of Lead and Zinc Polluted Soil using Helianthus Plant Species: A New Green Technology (KMC 102) (completed) University of Delhi (**Innovation Project**), May 2012 to April 2013, (Rs. 10, 00,000).
6. Monitoring, characterization and remediation of metal ion contamination in Delhi soils using green approach, (completed), **DST (SERC)**, Sept 2007 to Sept 2009, (Rs, 6,00,000)

Awards and Distinctions

1. Fellow of Royal Society of Chemistry, **FRSC, London**, 2018.
2. Travel Award given by International Cooperation Branch Organization for the Prohibition of Chemical Weapons for presenting a paper in **International Conference on Flow Injection Analysis** (ICFIA-2011) Krakow, Poland, July, 2011.
3. Travel Award given by University of Delhi for presenting a paper in **International Conference on Flow Analysis**, Aristotle University of Thessaloniki, and September, 2012.
4. Graduate Aptitude Test in Engineering (GATE), 1990. Score-99.75 **Second position in India**.
5. CSIR-UGC National Level Test For Eligibility of Lecturership .
6. Senior Research Fellowship (SRF), July 1992 to June 1995 Sponsored by Council of Scientific and Industrial Research (CSIR), New Delhi.
7. Junior Research Fellowship (JRF), July 1990 to June 1992, Sponsored by Council of Scientific and Industrial Research (CSIR), New Delhi.
8. **Science Meritorious Award**, University of Delhi, Third Position in University

Association with Professional Bodies

Society Membership

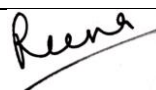
- Environment and Social Development Association, Delhi, ESDA, - Life Member, 2020
- Fellow Royal Society of Chemistry, FRSC, UK, 2018
- Member, American Chemical Society, ACS, Jan 2018
- Member, Royal Society of Chemistry, UK, Aug 2016
- Society of Environment Toxicology and Chemistry Asia-Pacific (SETAC)
- Indian Society of Analytical Scientists (ISAS)
- Green Chemistry Network Centre (GCNC)

Reviewer of International journals

- Journal of Analytical Atomic Spectroscopy, Royal society of Chemistry
- Analytical Methods , Royal society of Chemistry
- RSC Advances, Royal society of Chemistry
- Separation science and Technology, Taylor and Francis
- International journal of Environment Analytical chemistry, Taylor and Francis
- Analytical letters, Taylor and Francis
- Central European Journal of chemistry, Springer
- Journal of Nanoparticle Research, Springer
- S N Applied Sciences, Springer

Other Activities

- Coordinator-Chemistry, DBT Star college scheme, Department of Biotechnology, 2019-2022
- Member, Department Research Committee, Department of Chemistry, University of Delhi
- Recognized PhD Supervisor, Faculty of Science, University of Delhi, 23-04-2010
- CBSE Observer in AIEEE EXAMINATION



Signature of Faculty Member