## Curriculum Vitae

Smriti Sharma Bhatia Professor, Department of chemistry, Miranda House, University of Delhi 9999913821 Smriti.sharma@mirandahouse.ac.in



Dr. Smriti Sharma Bhatia has a teaching experience of more than 16 years. She is **presently an professor at Department of Chemistry, Miranda House and before that** she has taught at St. Stephen's College, University of Delhi. Her academic and research interests include computational chemistry, drug design, and nanoparticle toxicity in plants. Currently, her research group is focused on the **design of oral drug formulations** for Type 2 diabetes mellitus in collaboration with international and national scientists of repute. She has undertaken six research projects so far with funding from organizations such as DBT, UGC, and the Research Council, University of Delhi. A wellpublished researcher, she has 61 publications, including articles in peer-reviewed journals, book chapters, and conference proceedings. She was selected for the prestigious 'Faculty Training Program' of the University of Delhi to upgrade her skills at the University of Glasgow, UK and has been a Summer Faculty Research Fellow at IIT, Delhi twice. Her other distinctions include 'UGC Travel Award', 'Most Promising Innovation project' from the University of Delhi and best oral presentation awards at various conferences. Along with a Ph.D. in computational chemistry, she also has 'Post-graduate Diploma in Educational technology' from IGNOU, a diploma in 'Applied Nanotechnology', and certificate in French language. She is a member of various illustrious research bodies such as 'The Indian Science Congress Association' (ISCA), 'Indian Women Scientists Association' (IWSA), 'Materials Research Society of India' (MRSI), 'Indian Society of Analytical Scientists' (ISAS), and Young Academy of India (YAI). She regularly contributes as a resource person and consultant to NCERT, e-PG Pathshala -INFLIBINET and is a popular science communicator. Apart from her academic and research engagements, she is very active in the extracurricular life of college and has been the staff advisor, convenor and member of numerous committees and societies of college. She is active in community service and is the secretary of Dadhichi Deh Daan Samiti, an NGO working for the cause of organ and body donation in India for the past 20 years.

#### **CURRENT POSITION**

- May 2019 Present Professor, Department of Chemistry, Miranda House, University of Delhi
- May 2019 May 2022
   Associate Professor, Department of Chemistry, Miranda House, University of Delhi

### **PREVIOUS POSITION**

- July 2009 May 2019
   Assistant Professor, Department of Chemistry, Miranda House, University of Delhi
- Jan 2007- March 2007; July 2007-July 2009
   Assistant Professor, Department of Chemistry, St. Stephens College, University of Delhi

### **EDUCATION**

- Ph.D., Department of Chemistry, University of Delhi, 2010
- M.Sc., Department of Chemistry, University of Delhi, Delhi, 2003
- B.Sc., Sri Venkateshwara College, University of Delhi, 2001
- Post Graduate Diploma in Educational Technology, IGNOU, Delhi, 2014
- Six months 'Diploma in Applied Nanotechnology' from Biolim Varsity, 2015
- One year Certificate course in French language, University of Delhi, 2014

### **HONOURS AND AWARDS**

- Selected for Faculty Training Program, University of Delhi to do a one-year Masters course in Nanoscience and Nanotechnology at the University of Glasgow, UK
- Received the travel grant from UGC to participate in the 4th International Conference on Nanotechnology: Fundamentals and Applications, held in Toronto during August 12-14, 2013.
- Certificate of Appreciation, for Innovation Project (MH-310) Nanoparticles: Green Nanotechnology the future (MH-310), at 93rd Annual Convocation of University of Delhi held on 19 November 2016.
- 'Best oral presentation award' at 'International conference on molecular structure and instrumentation approaches', held from November 26-27, 2020, sponsored by Gujarat council of Science and Technology, Government of Gujarat at RK University, Rajkot Gujarat-India.
- 'Best oral presentation award' at National Conference on Advanced Research in materials Science (NCARMS-2021) organized by Department of Physics, Kamaraj College, Thoothukudi-628003, Tamilnadu, India.
- Senior Research Fellowship award, July, 2003-July, 2005
- Junior Research Fellowship Award, July, 2005-January, 2007
- Qualified Graduate Aptitude test in Engineering in 2003
- Awarded by CBSE for being in .01% meritorious students for academic excellence, Class X(securing 100% in Class X Science), 1998

### ACADEMIC EMPLOYMENT

Teaching experience of more than 16 years

- Professor, Miranda House, University of Delhi, May, 2022 Present
- Associate Professor, Miranda House, University of Delhi, May, 2019 May, 2022
- Assistant Professor, Miranda House, University of Delhi, July, 2009 May, 2019
- Assistant Professor, St. Stephen's College, University of Delhi, July, 2007 July, 2009
- Assistant Professor, St. Stephen's College, University of Delhi, Jan 2007- April 2007

### **RESEARCH PROFILE**

Research experience of more than **9** years post PhD:

- May, 2015-July, 2015: Visiting Researcher (Summer Faculty Research Fellow Programme-2015), Department of Chemistry, Electrochemistry Lab, Indian Institute of Technology, Delhi.
- May, 2020-July, 2020: Visiting Researcher (Summer Faculty Research Fellow Programme-2020), DAILAB (DBT-AIST International Laboratory for Advanced Biomedicine), Indian Institute of Technology, Delhi.

## **Sponsored Research Projects:**

Undertaken **six** research projects so far with total funding of **63.82 Lacs** from DBT, UGC and Research council, University of Delhi.

Sponsoring Agency	Title of the projects	Position		Budget (INR Lacs)
Department of Biotechnology(DBT)	To Establish a Pollution Monitoring Station Across road over the Nala at Kingsway Camp and determine effects of pollutants and air quality on the public health and microflora/microfauna	Co-PI	March 2018- ongoing	10.00
Research Council,University of Delhi	Therapeutic Potential of Medicinal Plants: Culture, Extraction, Physico-chemical Characterization and Testing their Cytotoxic or Immunostimulatory Properties (MH-02)	Co-PI	Feb 2016- Jan 2019	26.67
Research Council,University of Delhi	Sugarcane to Nanoparticles: Green Nanotechnology the Future(MH-310)	PI	Aug 2015 Jul 2016	05.00
Research Council,University of Delhi	Nanoparticles and Plant Systems: in vitro and in silico Studies(MH-206)	PI	Nov 2013- Mar 2015	06.50

Research Council,University of Delhi	Computational Modelling of Phytoregulatory profile of some nanoparticles (MH-102)	PI	May 2012-Jul 2013	10.00
UGC	Knowledge Gateway: A Portal for Scholarly Communication	Co-PI	2010- 2012	5.65

## **Publications**

## Peer reviewed journals:

- 1. Sharma, S. (2022) Quantum algorithms for simulation of quantum chemistry problems by quantum computers: an appraisal. *Foundations of Chemistry*. <a href="https://doi.org/10.1007/s10698-022-09428-9">https://doi.org/10.1007/s10698-022-09428-9</a>; **IF: 0.825**
- 2. Sharma S., **(2022)**. Nanomedicine: a solution to the key problems of diabetes research?. *Nanomedicine*. 17 (5), 271-274; https://doi.org/10.2217/nnm-2021-0339; **IF: 6.096**
- 3. Saini Kunika, Sharma S., **(2022).** Use of Tyrosine Kinase Inhibitors for treating Type 2 Diabetes Mellitus: An appraisal. *Chemical biology letters.* 9(3), 320; **Scopus indexed.**
- Sharma S., (2022). The role of nanomedicine in COVID-19 therapeutics.
   Nanomedicine. 17 (3), 133-136;https://doi.org/10.2217/nnm-2021-0007; IF:
   6.096
- Sharma S., (2022). Role of Extracellular vesicles in Alzheimer's disease: Current Advances. *Current Molecular Medicine*. 22(2), 85-97. doi: 10.2174/1566524021666210406121807. IF: 2.616
- 6. Sharma S., **(2021)**. Magnetic nanoparticles in microfluidics-based diagnostics: an appraisal. *Nanomedicine*. 16 (15), 1329-1342, https://doi.org/10.2217/nnm-2021-0007; **IF:** 6.096
- 7. Sharma S., Bhatia V. **(2021)**. An Appraisal of Skill Gaps in Bioinformatics Education . *Current bioinformatics* **IF: 4.85**
- 8. Sharma S., Bhatia V. **(2021)**. Recent trends in QSAR in Modelling of Drug-Protein and Protein-Protein Interactions. *Combinatorial Chemistry & High Throughput Screening.* 24 (7), 1031-1041; DOI: https://doi.org/10.2174/1386207323666201209093537; **IF:1.714**

- 9. Sharma S., Bhatia V. (2021). Phytochemicals for drug discovery in Alzheimer's disease: In silico Advances. *Current Pharmaceutical Design*. 27(25), 2848-2860. doi: 10.2174/1381612826666200928161721. PMID: 32988343; **IF: 3.31**
- 10. Sharma, S., & Bhatia, V. **(2021)**. Gut microbiota based treatment for Diabetes mellitus (T2DM): Challenges and Opportunities. *Chemical Biology Letters*. *8*(1), 31-39. **Scopus indexed**
- 11. Sharma, S., & Bhatia, V. **(2021)**. Global approaches to immunity and epidemiological studies of sars-cov-2: Does universal BCG vaccination policy play a role?' *European Chemical Bulletin*. *10*(2), 103-106.
- 12. Sharma, S., & Bhatia, V. **(2021)**. Nanoscale Drug Delivery Systems for Glaucoma: Experimental and In Silico Advances. *Current Topics in Medicinal Chemistry.* 21(2), 115-125, DOI: 10.2174/156802662066200922114210; **IF: 3.57**.
- 13. Sharma, S., & Bhatia, V. **(2021)**. Drug Design of GLP-1 Receptor Agonists: Importance of In silico Methods. *Current Pharmaceutical Design*. 27 (8), 1015-1024. https://doi.org/10.2174/1381612826666201118094502; **IF: 3.31**
- 14. Sharma, S., & Bhatia, V. **(2021)**. Appraisal of the role of In silico Methods in Pyrazole based drug design. *Mini-Reviews in Medicinal Chemistry*. 21 (2), 204-216. DOI: 10.2174/1389557520666200901184146; **IF: 3.737**
- 15. Sharma, S., & Bhatia, V. **(2020)**. Treatment of Type 2 diabetes mellitus (T2DM): Can GLP-1 Receptor Agonists fill in the gaps? A review on possible use Glucagon-like peptide-1 receptor drugs for Type 2 diabetes mellitus (T2DM) treatment. *Chemical Biology Letters*, 7 **(4)**, 215-224. **Scopus indexed**
- 16. Sharma S, Bhatia V **(2020)** Covid-19 Transmission via Water: Should we be Worried about the Faecal Droplet-Respiratory Transmission Route? *Archives of Clinical Microbiology*. 11 (4):119. doi: 10.36648/1989-8436.11.4.119

### **2019-2009**

17. Saini, K., Jojeph, F. & Bhatia, S. S. 2018. Electrochemical synthesis of copper (II) based metal organic frameworks: determination of structure by single X-ray diffraction crystallography and other supportive techniques. *Advanced Materials* 

*Proceedings.* 2018, **3**(7), 469-474; ISSN: 2002-4428

eISSN: 2000-441X

18. Saini, K., Ingole, P.P., Bhatia, S.S., Rani, N. 2018. Rod-Shaped Copper (Cu,Cu<sub>2</sub>O) Nano Catalyst for the Facile Oxidation of Methanol. *Advanced Materials Letters.* 2018, 9 (1), pp 36-41. ISSN: 0976-3961.

- 19. Saini, K., Jojeph F., Bhatia, S.S., 2018. Electrochemical Synthesis and Crystal Structure of a Metal Organic Framework of Copper (II) Complex derived from Malonic Acid and Picolinic acid. *Advanced Science, Engineering and Medicine*. Volume 10(10); pp. 963-974[12]. ISSN: 2164-6627 (print); eISSN: 2164-6635 (online)
- 20. Saini, K., Jojeph F., Arunachalam R. & Bhatia, S. S. 2017. Electrochemical synthesis of an oxalate- linked copper (II) metal organic frameworks: X-ray crystallographic structure and its magnetic properties. Materials Today: Proceedings 4: 9616-9621.ISSN: 2214-7853.
- 21. Bahri, S., Bhatia, S.S., Moitra, S., Sharma, N., Bhatt, R., Borthakur, N.S., Agarwal, R. and Jain, D. 2016. Influence of silver nanoparticles on seedlings of Vigna radiata (L.) Wilczek. *DU Journal of Undergraduate Research and Innovation*. 2(1):142-148. 2395-2334
- 22. Sharma, S.,Bhatia,S.S. 2015. The mapping of nanoparticles literature over the years. *International journal for Scientific Research & Development*: ISSN 2321-0613
- 23. Bahri, S.,Bhatia, S.S.2015.Nanopollution: a pedagogical strategy to raise awareness among students. International journal for scientific research & development: ISSN 2321-0613.
- 24. Kaur, G., Bhatia S.S. 2015. Preliminary in-silico studies on the role of nisin cyclase in food preservation. *International journal for scientific research & development*: 170-171 ISSN (online). 2321-0613).
- 25. Bhatia, S. S., Bahri, S. & Moitra, S. 2014. SiO2 nanoparticles: Effect on seedling biology. *International Journal of Applied Engineering Research*. 9(8): 935-939, ISSN 0973-4562.
- 26. Kakkar,R. Sharma, S.,2011.DFT study of interactions of carbenes with boron nitride nanotubes. *Chemistry journal.* 1(1): 9-20, ISSN 2049-954X
- 27. Kakkar,R. Sharma, S.,Bhadhani B. 2010. Density functional study of functionalization of carbon nanotubes with carbenes. *Canadian Chemical Transactions*. 2(4): 434-449, ISSN 2291-6458

### **Chapters in Books:**

**Chapters in Edited books in 2020:** 

- 28. Sharma S, Bhatia V. (2021). 'Antimalarial Drug Resistance: Basics and Emergence In book 'Malaria: Current Challenges and Recent Developments in Antimalarial Drugs'; Published by Bentham Science Publications. Accepted.
- 29. Sharma S, Bhatia V. (2021). 'In Silico Modeling of Anticancer drugs: Recent advances' in book Advance Machine Learning Approaches In book 'Cancer Prognosis: Challenges and Applications'; Published by Springer.
- 30. Sharma S, Bhatia V. (2021). 'Online learning: Challenges and Opportunities in the face of a Pandemic' In book 'Online Classroom: Opportunities and Challenges'; ISBN: 978-81-910756-9-4. Published by Institute of Scholar Publisher. In press.
- 31. Sharma S, Bahri S, Bhatia V. (2021). 'IPR: Challenges from Indian Perspective' In book Intellectual property rights: Challenges and prospects; Pg No. 82-87; ISBN:978-81-949439-8-3, Imperial Publications

### **Chapters in Edited books in 2019-2009**

- 32. Saini, K., Bhatia, S. S., Gupta, N. 2018. Electrochemical Synthesis of multidimensional Nanoparticales and their photocatalytic Applications. In: Green Chemistry in Environmental Sustainability and Chemical Education, Springer Nature, pp:51-59. ISBN: 978-981-10-8389-1
- 33. Moitra, S., Bahri, S. & Bhatia, S.S. 2015. Effect of ZnO nanoparticles on in vitro seedling biology. In: Nanotechnology: Novel Perspectives and Prospects. Singh, B., Kaushik, A., Mehta, S.K. &Tripathi, S. K.(Eds); Kapoor, S. &Agrawal, S.K. (Associate Eds), McGraw Hill Education (India) Private Limited, pp. 541-547. Print Edition: ISBN(13) 978-93-392-2109-6, ISBN(10) 93-392-2109-5. E-book Edition: ISBN (13) 978-93-392-2182-9, ISBN (10) 93-392-2182-6.
- 34. Bhatia, S. S. & Sharma, S. 2015. An infometric analysis of e-learning globally, In: Library and Information Services: Advancing with Technology: Proceedings of the Festschrift in Honour of Dr.A.Hariharan and Dr.S.Surianarayanan, Society for the Advancement of Library and information Science, 26th Sep., 2015. (ISBN: 978-93-85469-01-5).
- 35. Bhatia, S.S., Bahri, S. & Moitra, S. 2014. Increase in the pharmaceutical potential of Sorghum bicolor and Vigna radiata by nanoparticles ZnO and SiO2. In: Pharmaceutically Important Plants. Sangeetha, R. (ed.), Grabs Educational Charitable Trust, pp. 42-53. ISBN 978-81-929313-2-6.

## Details of papers/abstract presented in conference proceedings:

### <u>2020</u>

- 36. Sharma S., Bhatia V., (2020) 'An instructive module for Hands-on training of Bioinformatics to school students' abstract "International Virtual Conference on Green Chemistry for Clean Environment", held from October 3- 4, 2020 organized by Department of Chemistry and Department of PG studies, Pacific academy of higher education and research University, Udaipur, India.
- 37. Sharma S., Bhatia V., (2020) 'Recent advances in Nanoscale drug delivery systems for Glaucoma' abstract "International Virtual Conference on Green Chemistry for Clean Environment", held from October 3- 4, 2020 organized by Department of

- Chemistry and Department of PG studies, Pacific academy of higher education and research University, Udaipur, India.
- 38. Sharma S., Bhatia V., (2020) 'Global approaches to Immunity & Epidemiological studies of SARS-COV-2: Does Universal BCG Vaccination Policy play a role?' abstract accepted to be published in International Conference on Molecular Structure & Instrumental Approaches" (ICMSI-2020), to be held from 26-27 November, 2020 organized by RK University, Rajkot, India

- 39. Saini, M., Saini, K., Rani, N. and Bhatia, S.S. 2019. Determination of Cellular structure and morphology of Medicinal Plant by using Foldscope Microscopy and Scanning Electron Microscopy, National Conference on Advance in Microscopy and Foldscope, 15-16 March, 2019, Organized by Department of Biotechnology, Motilal Nehru National Institute of Technology (MNNIT), Allahabad. (Proceedings of National Conference NCF/BM/01021, 2019).
- 40. Saini, K., Rani, N., Bhatia, S.S., Mahajan E., D. Jain and Tiwari. A., XPS and optical studies of different morphologies of ZnO nanostructures synthesized by Green methods., NSHE, 20 March, 2018, Daulat Ram College, University of Delhi.
- 41. Saini , K., Ingole, P.P., Bhatia, S. S., Sharma, S.S. 2016. A Green Synthesis of Copper and Copper Oxide Nanoparticles Via Electrochemical Route and its Electrocatalytic Applications for Sustainable Future, Proc. NCGCSTS 2016, 74-77. ISSN 978-93-83693-83-2.
- 42. Saini, K., Bhatia, S. S., Gupta, N., 2016. Electrochemical Synthesis of multidimensional Nanoparticales and their photocatalytic Applications. International Conference on Green Chemistry-2016( ICGC-2016) Daulat Ram College, Department of Chemistry, University of Delhi, 17-18 November, 2016 (abstract)
- 42. Sharma Sukriti, Bhatia Sharma Smriti.2015. Nanobiosensors-A Scientometric study in last 25 years. In: Proceedings of 'National conference on Recent trends in instrumentation and Electronics', ISBN No. 978-81-930724-0-0,pp 27-29, published by Yashasvi Enterprises. The conference was organized by Shaheed Rajguru College of Applied Sciences for Women, University of Delhi on 5 -6 January 2015.
- 43. Bahri, S., Bhatia, S.S. & Moitra, S. 2015. Effect of nanoparticles on environment and human health. In: Proceedings National Conference on Climate Change: Impacts, Adaptation, Mitigation Scenario and Future Challenges in Indian Perspective. Tripathi, S., Devi, R.S., Kumar, S. & Jolli, V. (Eds), Department of Botany, Deen Dayal Upadhyaya College, University of Delhi, Delhi, 02-03 March 2015, pp. 143-146. ISBN 978-93-5235-335-4.
- 44. Bhatia, S.S., Bahri, S. & Moitra, S. 2015. Characterization and analysis of nanoparticles: a module. In: Proceedings National Conference on Recent trends in Instrumentation and Electronics, Shaheed Rajguru College of Applied Sciences for Women, University of Delhi, Yashasvi Enterprises, 05-06 January 2015, pp. 59-61. ISBN 978-81-930724-0-0.
- 45. Bhatia Sharma Smriti, Kaur Gunsheen. 2015. In-Silico study of inhibition of Cysteine Protease (papain) In: Proceedings of 'National conference on Recent trends in instrumentation and Electronics', ISBN No. 978-81-930724-0-0, pp 59-61, published

- by Yashasvi Enterprises. The conference was organized by Shaheed Rajguru College of Applied Sciences for Women, University of Delhi on 5 -6 January 2015.
- 46. 'Teaching quantum chemistry using MS-Excel as a Pedagogical tool' paper published at 'National Conference on "Striving & Thriving Towards Diffusion of Student-driven Research in Science and Technology for Inspired Learning" held on 16 17 October 2014 being organized by Embedded Systems and Robotics Centre and Department of Electronics, Maharaja Agrasen College, University of Delhi, New Delhi.
- 47. 'A Bibliometric Investigation of Nanotechnology from 1989 to 2014' paper published at 'National Conference on "Striving & Thriving Towards Diffusion of Student-driven Research in Science and Technology for Inspired Learning" held on 16 17 October 2014 being organized by Embedded Systems and Robotics Centre and Department of Electronics, Maharaja Agrasen College, University of Delhi, New Delhi.
- 48. Bahri, S., Bhatia, S.S. & Moitra, S. 2014. An interdisciplinary pedagogical approach to develop a module for phytoregulatory profile of nanoparticles. In: Proceedings National Conference on Striving & Thriving Towards Diffusion of Student-driven Research in Science and Technology for Inspired Learning, Authorspress, Maharaja Agrasen College, University of Delhi, 16-17 October 2014, pp. 316-320. ISBN 978-81-7273-958-4.
- 49. "Effect of SiO<sub>2</sub> nanoparticles on the seed germination of Sorghum Bicolor and Vigna radiate- a preliminary report" abstract published in the proceedings of International conference on Nanotechnology in the service of Health, Environment and Safety, 2014, Chandigarh, India
- 50. "An infometric analysis of nanotechnology in Drug Discovery" abstract published in the proceedings of at 1st International Conference on Emerging trends of Nanotechnology in Drug Discovery organized by Sri Venkateswara College, University of Delhi & Department of Biochemistry, UDSC India in association with CQM, University of Madeira, Portugal, held on 26-27 May, 2014.
- 51. "Zno Nanoparticles: Phytoregulatory Profiling On Sorghum Bicolor" abstract published in the proceedings of at 1st International Conference on Emerging trends of Nanotechnology in Drug Discovery organized by Sri Venkateswara College, University of Delhi & Department of Biochemistry, UDSC India in association with CQM, University of Madeira, Portugal, held on 26-27 May, 2014.
- 52. "Zno Nanoparticles Stimulatory or Inhibitory for Polypleurum stylosum (Podostemaceae): A study" abstract published in the proceedings of at 1st International Conference on Emerging trends of Nanotechnology in Drug Discovery organized by Sri Venkateswara College, University of Delhi & Department of Biochemistry, UDSC India in association with CQM, University of Madeira, Portugal, held on 26-27 May, 2014.
- 53. Bahri, S., Bhatia, S.S., Sehgal, A., Moitra, S. & Mann, N.2013. Phytoregulatory profile of ZnO nanoparticles. In: Proceedings International Conference on Nanotechnology: Fundamentals and Applications, Toronto, Ontario, Canada, 12-14 August 2013. ISBN 978-1-927877-00-5.
- 54. Sehgal, A., Moitra, S., Bahri, S., Bhatia, S.S. & Mann, N. 2013. Effect of ZnO nanoparticles on the seed germination and seedling biology of Polypleurum stylosum (Podostemaceae). In: Proceedings International Conference on

- Nanotechnology: Fundamentals and Applications, Toronto, Ontario, Canada, 12-14 August 2013, ISBN 978-1-927877-00-5.
- 55. "Phytoregulatory profile of Nanoparticles ZnO and SiO2" abstract Published in the proceedings of National Conference on Relevance of Nanotechnology in Biology, held at Hansraj College on March 1,2013.
- 56. Density Functional Study of Functionalization of Carbon Nanotubes with Carbenes members of the Department of Applied Chemistry at Cochin, University of Science and Technology is organizing a National Seminar on Current Trends in Chemistry (CTriC 2011) on 4th and 5th of March 2011.
- 57. "DFT study of Functionalization of Carbon Nanotubes with Carbenes" abstract Published in the proceedings of 'First National Conference on Recent Advances in Polymer Nanocomposites" held at Zakir Hussain College, University of Delhi during January 14-15,2011.
- 58. "Medical Law and Ethics: A review", abstract Published in the proceedings of the National Conference On Ethics, Values and Morality: Concept, Theory & Practice.PAGE 76,held on 28 May, 2011.
- 59. "Science and Spirituality: Seekers of the Ultimate Truth" abstract Published in the proceedings of International Conference on Science, Spirituality and Humanity: Transcending Discipline Barriers held at Conference Centre, New Delhi during February 17-19,2011.PAGE 78
- 60. "Science and Ethics: The present scenario", abstract Published in the proceedings of the National Conference on Ethics, Values and Morality: Concept, Theory & Practice. PAGE 63, held on 28 May, 2011

### PROFESSIONAL DEVELOPMENT COURSES

### Refresher/Orientation courses/FDP

S.No.	Name of the	Nature of	Organised	Duration	Venue	Project
	Programme	Programm	by			Undertaken
		e				
1.	96th four week	One month	Academic	April 14 -	UGC-ASC,	
	Orientation	Orientation	Staff	May 13,	Jamia Millia	
	Programme	Programme	College,	2011	Islamia	
			Jamia Millia			
			Islamia,			
			New Delhi			
2.	Refresher	3 week	Centre for	Decembe	Centre for	Science and
	Course in	Refresher	Professiona	r 1 -	Professiona	Spirituality
	Chemistry	Course	1	Decembe	1	
			Developme	r 22,	Developme	
			nt in Higher	2011	nt in Higher	
			Education,		Education,	

			Institute for Lifelong Learning, University of Delhi.		Institute for Lifelong Learning, University of Delhi.	
3.	Refresher Course in Environmental and Earth Sciences	3 week Refresher Course	Centre for Professiona l Developme nt in Higher Education, Institute for Lifelong Learning, University of Delhi.	October 13- Novembe r 4, 2015	Centre for Professiona l Developme nt in Higher Education, Institute for Lifelong Learning, University of Delhi.	Green Chemistry and Computation al Chemistry: Two Sides of the Same Coin
4.	5 <sup>th</sup> Refresher course in contemporary studies (Interdisciplina ry)	4 week Refresher Course	Academic Staff College, Jawaharlal Nehru University	Decembe r 31,2018- January 25,2019	Academic Staff College, Jawaharlal Nehru University	Genetically Modified Crops and Food Security in India
5.	Online Refresher Course in Chemistry for Higher Education Faculty (ARPIT)	Online 4 months Refresher Course	National Resource Centre of MHRD at Guru Angad Dev Teaching Learning Centre, a centre under PMMMNMT T scheme of MHRD, Govt. of India at SGTB Khalsa College	Novembe r 1, 2018 - February 28, 2019	Online Refresher course organized by National Resource Centre of MHRD at Guru Angad Dev Teaching Learning Centre	Test was conducted. Score 87/100.

6.	Faculty Development Programme on Network Science: Foundation of Social Network Analysis	One week Faculty Developme nt Programme	Ramanujan College & Department of Computer Science, University of Delhi, MHRD, a centre under PMMMNMT T scheme of MHRD, Govt. of India	Decembe r 03-08, 2018	Department of Computer Science, University of Delhi	Test was taken :Score 8/10
7.	Faculty Development Programme on Advancements in Integrated Sciences: Learning & Adaptation for Effective Teaching and Research	One week Faculty Developme nt Programme	Shayam Lal College in collaboratio n with UGC- HRDC, Jamia Millia Islamia and CSIR-IGIB.	Decembe r 10-16 ,2018	Conference Hall, Shayam Lal College	Test was taken.
8.	Online Faculty Development Programme on "Open Source Tools for Research"	One week Faculty Developme nt Programme	Ramanujan College & Department of Computer Science, University of Delhi, MHRD, a centre under PMMMNMT T scheme of MHRD, Govt. of India	June 08 - June 14, 2020.	Online FDP organized by Ramanujan College & Department of Computer Science, University of Delhi.	Cumulative score in quiz and assignments.

9.	Online Faculty Development Programme on "ICT Based New Paradigms of E-Teaching and E-Learning : Digital Pedagogy"	Two weeks Faculty Developme nt Programme	Ministry of Human Resource Developme nt Department of Computer Science, Mata Sundri College for Women University of Delhi In Collaboratio n with Pandit Madan Mohan Mohan Malviya National Mission on Teachers and Teaching Teaching Learning Centre, Ramanujan	Septemb er 15- Septemb er 30, 2020	Online FDP organized by Department of Computer Science, Mata Sundri College for Women University of Delhi	Cumulative score in quiz and assignments. Obtained grade A.
10.	Online Faculty Development Programme on "Recent Developments in Chemical Research for Societal Applications"	One week Faculty Developme nt Programme	College Department of Chemistry, Yogi yamana university, Kadapa, A.P., India	August 3, 2020- August 8, 2020	Online FDP organized by Chemistry, Yogi yamana university, Kadapa, A.P., India	
11.	Online Faculty Development Programme on "Quantitative Methods for Research"	One week Faculty Developme nt Programme	Department of Post- graduate studies, Pacific University, Udaipur, India	June 10- June 15, 2020	Online FDP organized by Department of Postgraduate studies, Pacific University,	

					Udaipur, India	
12.	One week Faculty development program on "Design, Development and Deliver Online Courses"	One week Faculty development program	National Institute of Educational Planning and Administratio n (NIEPA), Ministry of Human Resource Development , Government of India	June 18- June 14, 2021	Online	
13.	One week (Online) Faculty Development Programme on 'Computationa I Approach to Drug Discovery'	One week Faculty development program	Deshbandh u College, University of Delhi & Center for Bioinforma tics, Computati onal and Systems Biology in collaborati on with Mahatma Hansraj Faculty Developme nt Centre Hansraj College, University of Delhi	August 7- August 2, 2021	Online	
14	Two week virtual workshop on "Next Generation Bioinformatics Approaches In Infection Biology"	Two week workshop	Jaypee Institute of Information Technology, Noida	April 15 – April 4, 2022	Online	

## PARTICIPATION IN PROFESSIONAL DEVELOPMENT ACTIVITIES

<u> 2022:</u>

- April 20-21, 2021, International conference on "Rethinking Science for Sustainable Development" Department of Chemistry, Rajdhani college, University of Delhi Poster presentation Role of GLP-1 receptor agonists in Type 2 diabetes mellitus Abstract published in the conference abstract book
- June 25, 2021 "International Virtual conference on Frontiers in Chemical Sciences (IVCFCS-2021)" Department of Chemistry, MLSU, Udaipur, Rajasthan. Poster presentation Clinical Applications of Gliptins: Safety and Side Effects Abstract published in the conference abstract book
- Oct 8-9, 2021 International conference on "Recent Trends in Drug Discovery and Development". Department of Chemistry, Maitreyi College, University of Delhi Oral presentation T2DM Therapeutics: Targeting the DPP-4 Enzyme. Abstract published in the conference abstract bookNov 29-30, 2021 International E-Conference on "Sustainable and Futuristic Materials (SFM-2021)"
- Department of Chemistry, Krishnankoil, Bhandara, Nagpur Oral presentation. Significance and Status of Nanoformulations for Diabetes Mellitus. Abstract published in the conference abstract book

## **Oral Presentations (2020):**

 Presented a research paper titled 'An instructive module for Hands-on training of Bioinformatics to school students' at International virtual conference on 03-04th Oct. 2020 entitled "International Virtual Conference on Green Chemistry for Clean Environment" organized by Department of Chemistry and Department of PG studies, Pacific academy of higher education and research University, Udaipur, India.

## **Organizing FDP/ conferences (2020):**

- Co-coordinator, 60 hour 'Add on Certificate course in Nanochemistry' in the academic session 2019-2020 organized by Department of chemistry, Miranda House, university of Delhi.
- Organizing secretary, National conference 'Nano road- show', held on February 1, 2020 organized by Indian Institute of Technology (IIT) Delhi and Miranda House, University of Delhi and sponsored by Karnataka Science and Technology Promotion Society.
- Member, Organizing Committee, one week national online Faculty Development Program on 'Application of ICT in Teaching and Chemical research' organized by jointly organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMNMTT) of MHRD and National Education Society(R) Jawaharlal Nehru New College of Engineering, Shivamogga. from October 6 – 10, 2020
- Member, Organizing Committee for the webinar "Learnings from Corona Pandemic" held at Miranda House, University of Delhi from 24 -25 September 2020.
- Member, Organizing Committee, IUPAC Symposium 2020, Symposium on empowering women in chemistry: A global networking event held on 12 February, 2020 at Miranda House, University of Delhi.

## E-content/ MOOCs developed (2020):

• 'ChemICT Tools: Learning Chemistry through Computers- ArgusLab' under SWAYAM: Online refresher course in chemistry for higher education September, 2019 under four quadrant approach consisting of video, text, self-assessment and learn more.

## Participation in Conferences/Webinars/Seminars (2020):

- Successfully attended 3 days International e-Workshop on "Docking, QSAR and Molecular Dynamics" jointly organized by Department of Biotechnology, Ramaiah Institute of Technology and Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Ramaiah University of Applied Sciences, Bengaluru, Karnataka, India in association with IEEE-EMB MSRIT student chapter and SRIGEN-Society of Biotechnologists from 29 to 31 July 2020.
- Successfully attended Webinar Series 2020 talk 'Natural Molecules Against SARS-CoV-2: A Molecular Modelling Study' held during the, organized by the Sukshmjeev Society, Department of Microbiology, under the aegis of Star College Scheme, DBT, Govt. of India and IQAC held on July 7, 2020.
- Successfully attended the 1st Workshop on E-Learning on "Design, Development and Delivery of Online Courses" organized by the Special Centre for E-Learning, JNU.
- Successfully attended the webinar on "Understanding Plagiarism and its Consequences Using URKUND as a Plagiarism Tool" organized by Delhi Library Association (DLA) in collaboration with eGalactic, Pune (Maharashtra).
- Successfully attended International webinar entitled "Drug Discovery New Lead from Old Drugs" on 06-Jun-2020 organized by Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Ramaiah University of Applied Sciences, Bengaluru, Karnataka, India.

- Third Prize in Poster 'A Green Synthesis of Copper and Copper Oxide Nanoparticles
  Via Electrochemical Route and its Electro catalytic Applications for Sustainable
  Future' in the National Conference on Green Chemistry and sustainable Technologies
  for Society-2016 organized by Department of Chemistry & Electronics Engineering,
  Government Women Engineering College, Ajmer on 11-12 Jan, 2016.
- Dr. Smriti Sharma Bhatia presented two research papers titled 'The Mapping of Nanotube literature over the years' and 'Mapping Research output of Ocular Morbidity Globally' at National Conference on Ethics, Copyrights and Plagiarism in Research & Publications on 8 Aug, 2015 at Central Council for Research in Homeopathy, Ministry of Ayush, New Delhi, organized jointly by The Society for Social Development and Peoples Action, New Delhi and the Central Council for Research in Homoeopathy, New Delhi.
- Dr. Smriti Sharma Bhatia presented a research paper titled 'Effect of Nanoparticles on environment and human health' and a poster titled 'Food security: An infometric Analysis in last 25 years" at National Conference on Climate Change: Impacts, Adaptation, Mitigation Scenario and Future Challenges in Indian Perspective" on 2-3 March, 2015 held at Conference centre, University of Delhi organized by Department of Botany, Deen Dayal Upadhyaya College.
- Dr. Smriti Sharma Bhatia participated in the three day National Workshop 'E-Learning Tools for Teacher Educators' organized by Guru Ram Dass College of Education affiliated to GGSIP University, Delhi from 04-05 May, 2015.

- Dr. Smriti Sharma Bhatia participated in the short term course on Advanced Materials Characterization under Technical Education Quality Improvement Programme organized by Department of Applied Mechanics, IIT Delhi on 12-14 May, 2015.
- Dr. Smriti Sharma Bhatia participated in the Summer Faculty Research Fellow Programme-2015 under Continuing Education Programme, IIT Delhi from 15 May, 2015 to 15 Jul. 2015.
- Dr. Smriti Sharma Bhatia participated in the National Conference in Chemistry-2016(NCC-2016),organized by Department of Chemistry, Shyamlal College, University of Delhi, at India International Centre, 7-8 April, 2016.
- Dr. Smriti Sharma Bhatia presented a poster on Synthesis of Copper nanoparticles and characterizations by using different Techniques in Indo-Portuguese Workshop on Emerging Trends of Nanotechnology in Chemistry and Biology (INCB-2016),organized by Department of Chemistry, Hansraj College and Deshbandhu College, University of Delhi, India in association with Centro de Quimica da Madeira University da Madeira, PORTUGAL(12-13 Feb,2016).
- Dr. Smriti Sharma Bhatia was a coordinator and resource person in the workshop Green Nanotechnology for Beginners at Miranda House, University of Delhi on 28 Jan, 2016.
- Dr. Smriti Sharma Bhatia participated in National Seminar on Anthropology of Cardiometabolic Adversities held at Department of Anthropology, University of Delhi from 26-27 Sep, 2015.
- Dr, Smriti Sharma Bhaia presented a poster An Instructive Module to Raise Awareness about Nanopollution at the National Symposium on Environmental Contamination and Public Health organized by Zakir Hussain College, University of Delhi on 24 Aug, 2015.
- Dr, Smriti Sharma Bhaia presented a paper entitled Effect of nanoparticles on environment and human health. and presented a poster on Food security: An infometricAnalysis in last 25 years at National Conference on Climate Change: Impacts, Adaptation, Mitigation Scenario and Future Challenges in Indian Perspective, March 2-3, 2015 held at Conference centre, University of Delhi.
- Dr. Smriti Sharma Bhatia attended an interactive session on foldscope held at Gargi College, University of Delhi on 16 Dec, 2015.
- Dr. Smriti Sharma Bhatia presented a paper entitled The economics of nanotechnology at the National Seminar on Emerging Economics And Challenges to Sustainability towards developing Nations at Sri Aurobindo College, University of Delhi on 29-30 Mar. 2016.
- Dr. Smriti Sharma Bhatia participated in Two-Day National Seminar On "Recent Trends in Technical Terminology in Science" organized by Sri Aurobindo College and CSTT, Ministry of HRD, Govt. Of India, New Delhi on 16-17 Feb, 2015.

S.	Professional	Organizing	Place	Duration	
No.	Development Activity Attended	Agency		From	То
1.	Presented two papers titled 'Nanobiosensors-	Shaheed Rajguru College Of Applied	Delhi	05.01.2015	06.01.2015

S. Professional		Organizing	Place	Duration		
No.	Development Activity Attended	Agency		From	То	
	A Scientometric study in last 25 years' and 'Characterization and analysis of Nanoparticles: A module'at 'National conference on Recent trends in instrumentation and Electronics', organized by Shaheed Rajguru College Of Applied Sciences For Women, University of Delhi on 5 -6 January 2015.	Sciences For Women, University of Delhi				
2.	Presented a poster titled 'An Instructive Module to Raise Awareness about Nanopollution' at Natioanl Symposium on Environmental Contamination and Human Health organized by Zakir Hussain College, University of Delhi on Aug 24, 2015.	Zakir Hussain College, University of Delhi	Delhi	24.08 2015.	24.08. 2015.	

S.	Professional	Organizing	Place	Duration	
No.	Development Activity Attended	Agency		From	То
3.	Presented two research papers titled "The Mapping of Nanotube literature over the years' and 'Mapping Research output of Ocular Morbidity Globally' at National Conference on Ethics, Copyrights and Plagiarism in Research & Publications on August 8, 2015 at Central Council for Research in Homeopathy, Ministry of Ayush, New Delhi, organized jointly by The Society for Social Development and Peoples Action, New Delhi and the Central Council for Research in Homoeopathy, New Delhi and the Central Council for Research in Homoeopathy, New Delhi.	Central Council for Research in Homeopathy, Ministry of Ayush, New Delhi, organized jointly by The Society for Social Development and Peoples Action, New Delhi and the Central Council for Research in Homoeopathy, New Delhi	Delhi	08.08. 2015	08.08. 2015
4.	Presented a research paper titled 'Effect of Nanoparticles on environment and human health' and a poster titled 'Food security: An	Department of Botany,Deen Dayal Upadhyaya College, University of Delhi	Delhi	02.03. 2015	03.03. 2015

S. Professional		Organizing	Place	Duration	
No.	Development Activity Attended	Agency		From	То
	infometric Analysis in last 25 years" at National Conference on Climate Change: Impacts, Adaptation, Mitigation Scenario and Future Challenges in Indian Perspective" on March 2 - 3, 2015 held at Conference centre, University of Delhi organized by Department of Botany,Deen Dayal Upadhyaya College.				
5.	Participated in a workshop on Research Metrics organized by Research Council and Delhi University Library System, University of Delhi on Feb 26, 2015.	Research Council and Delhi University Library System, University of Delhi	Delhi	26.02. 2015	26.02. 2015
6.	Participated in the three day National Workshop 'E-Learning Tools for Teacher Educators' organized by Guru Ram Dass College of Education affiliated to GGSIP University ,Delhi	Guru Ram Dass College of Education affiliated to GGSIP University ,Delhi	Delhi	04.05.2015	06.05.2015

S.	Professional	Organizing	Place	-		
No.	Development Activity Attended	Agency		From	То	
	from 04.05.2015 to 06.05.2015.					
7.	Participated in the short term course on Advanced Materiales Characterization under Technical Education Quality Improvement Programme organized by Department of Applied Mechanics, IIT Delhi on MAY 12-14 2015.	Department of Applied Mechanics, IIT Delhi	Delhi	12.05.2015	14.05.2015	
8.	Participated in the Summer Faculty Research Fellow Programme-2015 under Continuing Education Programme ,IIT Delhi,from May 15, 2015 to July 15, 2015.	Continuing Education Programme ,IIT Delhi	Delhi	15.05.2015	15.07.2015	
9.	Participated in the International conference on 'Recent advances in Nanoscience and Nanotechnology-2014 (ICRANN-2014)' organized by and held at Special Centre for	Special Centre for Nanoscience, Jawaharlal Nehru University	Delhi	15.12.2014	16.12.2014	

S.	Professional	Organizing	Place	Duration		
No.	Development Activity Attended	Agency		From	То	
	Nanoscience, Jawaharlal Nehru University on 15- 16 December,2014.					
10.	Presented a poster titled 'Zno Nanoparticles Stimulatory or Inhibitory for Polypleurum stylosum (Podostemaceae): A study' at 1st International Conference on Emerging trends of Nanotechnology in Drug Discovery organized by Sri Venkateswara College, University of Delhi & Department of Biochemistry, UDSC India in association with CQM, University of Madeira, Portugal, held on 26-27 May,2014.	Sri Venkateswara College, University of Delhi & Department of Biochemistry, UDSC India in association with CQM, University of Madeira, Portugal	Delhi	26.05.2014	27.05.2014	
11.	Presented three research papers titled 'Teaching Quantum Chemistry using MS-Excel as a pedagogical tool', 'A bibliometric investigation of Nanotechnology from 1989 to	Maharaja Agrasen College, University of Delhi	Delhi	16.10.2014	17.10.2014	

S.	Professional	Organizing	Place	Duration	
No.	Development	Agency		From	To
	Activity				
	Attended				
	<b>2014</b> 'and <b>In-</b>				
	Silico study of inhibition of				
	Cysteine				
	Protease				
	(papain)' at the				
	National				
	Conference on				
	"Striving and				
	Thriving Towards				
	Diffusion of				
	Student-driven				
	Research in				
	Science and				
	Technology for				
	Inspired Learning"				
	organized by				
	Maharaja Agrasen				
	College, University				
	of Delhi during				
	October 16-17,				
	2014.				
12.		 Jawaharlal	Delhi	07.06.2014	08.06.2014
12.	Presented a paper	Nehru	Deim	07.00.2011	00.00.2011
	titled 'SiO <sub>2</sub>	University, New			
	Nanoparticles:	Delhi			
	Effect on seedling				
	<b>biology'</b> at 4th				
	International				
	Conference On				
	"Advances in				
	Mechanical,				
	Material,				
	Manufacturing,				
	Automobile,				
	Aeronautical				
	Engineering and				
	Applied Physics"				
	(AMAEAP-2014)				
	held at Jawaharlal				
	Nehru University,				
	New Delhi, on 7-8 June, 2014.				
	June, 2014.				

S.	Professional Development Activity Attended	Organizing	Place	Duration		
No.		Activity		From	То	
13.	Participated in the One Day 'National Seminar on Changing Role of Librarians' in Digital Era organized by Central Library, Jawaharlal Nehru University in association with Indian Association of Special Libraries & Information Centres (IASLIC),& Association of Media Libraries and Archives Supported by Informatics (India) Limited 12th August 2014.	Central Library, Jawaharlal Nehru University in association with Indian Association of Special Libraries & Information Centres (IASLIC),& Association of Media Libraries and Archives Supported by Informatics (India) Limited	Delhi	12.08.2014	12.08.2014	
14.	Participated in the seminar on "Microscopic Techniques" held on June 26, 2014 at India Habitat Centre, New Delhi organized by Indian Society of Analytical Scientists (ISAS)-Delhi Chapter in association with M/S. ICON Analytical Equipment Pvt. Ltd.	Indian Society of Analytical Scientists (ISAS)- Delhi Chapter in association with M/S. ICON Analytical Equipment Pvt. Ltd	Delhi	26.06.2014	26.06.2014	
15.	International Training Program	DBT, IUSSTF and COACH	Delhi	01.09.2014	05.09.2014	

S.	Professional	Organizing	Place	Duration	
No.	Development Activity Attended	Agency		From	То
	on Leadership & Career Development for Women Scientists & Technologists held from September 1-5, 2014, held at INSA, New Delhi organized by DBT, IUSSTF and COACH.				
16.	Workshop on "Nano probe techniques" organized by Nano Scale research facility at IIT Delhi held on 14th July, 2014.	Nano Scale research facility at IIT Delhi	Delhi	14.07.2014	14.07.2014
17.	Presented two research papers titled 'Effect of ZnO Nanoparticles on the seed germination and seedling biology of Polypleurum stylosum (Podostemaceae)' and 'Phytoregulatory Profile Of Zno Nanoparticles' in 4th International Conference on 'Nanotechnology: Fundamentals and Applications', held in Toronto during August 12-14, 2013.	International ASET Inc.	Toronto	12.08.2014	14.08.2014

S.	Professional	Organizing	Place	Duration	
No.	Development	Agency		From	То
	Activity Attended				
18.	Presented a	Hansraj College,	Delhi	01.03.2013	01.03.2013
10.	research paper	University of	Dellii	01.03.2013	01.03.2013
	titled	Delhi			
	'Phytoregulatory				
	profile of				
	Nanoparticles ZnO				
	and SiO <sub>2</sub> ' in the				
	'National				
	Conference on				
	Relevance of				
	Nanotechnology in				
	Biology' held at Hansraj College,				
	University of Delhi				
	on March 1, 2013.				
19.	Participated in the	CPDHE,	Delhi	21.06.2013	22.06.2013
	Workshop on	University of			
	'Science and Life'	Delhi			
	organized by				
	CPDHE, University				
	of Delhi during				
20	June 21-22, 2013.		Delhi	17.12.2012	21.12.2012
20.	Participated in the Workshop		Dellii	17.12.2012	21.12.2012
	'Introduction to				
	Gaussian: Theory				
	and Practice' held				
	at New Delhi,				
	during December				
	17-21,2012.				
21.	Participated in the	University of	Delhi	06.09.2012	07.09.2012
	Academic	Delhi			
	congress titled 'Enabling the				
	young:				
	Redefining				
	Education'				
	organized by the				
	University of Delhi				
	on 6-7				
	September,2012.				
22.	Attended a	Delhi University	Delhi	06.06.2011	10.06.2011
	training course on	Computer centre			
	danning course off				

S.	Professional	Organizing	Place	Duration	
No.	Development Activity Attended	Agency		From	То
	SPSS (Statistical				
	Package for				
	social sciences)				
	organized by Delhi				
	University				
	Computer centre				
	from 06/06/2011				
	to 10/06/2011.				
23.	Presented a paper titled 'Science and Ethics: The present scenario' at National Conference on Ethics, Values and Morality: Concep t, Theory & Practice organize d by Manav Rachna International University on May 28, 2011.	Manav Rachna International University	Faridaba d	28.05.2011	28.05.2011
24.	Presented a research paper titled 'Science and Spirituality: Seekers of the Ultimate Truth' in International Conference on Science, Spirituality and Humanity: Transcending Discipline Barriers held at Conference Centre, New Delhi	Shivaji College,Universit y of Delhi	Delhi	17.02.2011	19.02.2011

S.	Professional	Organizing	Place	Duration	
No.	Development Activity Attended	Agency		From	То
	organized by Shivaji College,University of Delhi during February 17-19, 2011.				
25.	Participated in the National Seminar on "Role of analytical techniques in biological and environmental Sciences", held on January 27-29, 2011.	ISAS	Delhi	27.01.2011	29.01.2011
26.	Presented a research paper titled DFT stydy of Functionalizatio n of Carbon Nanotubes with Carbenes in the 'First National Conference on Recent Advances in Polymer Nanocomposites" held at Zakir Hussain College, University of Delhi during January 14-15, 2011.	Zakir Hussain College, University of Delhi	Delhi	14.01.2011	15.01.2011
27.	Participated in Workshop on 'Chemistry Lab Safety Awareness' organized by ILL and DRDO, Ministry of Defence on August	ILLL and DRDO	Delhi	31.08.2010	31.08.2010

S.	Professional	Organizing	Place	Duration	
No.	Development Activity Attended	Agency		From	То
	31, 2010.				
28.	Workshop on Information Communication Technology ( ICT ) organized by ILLL, April 19-24 ,2010, in Miranda house, University of Delhi.	ILLL, Delhi	Delhi	19.04.2010	24.04.2010
29.	Participated in, 'National symposium on Chemistry in Biology', held at India International centre, New Delhi, February 12-13, 2010.	India International centre, New Delhi	Delhi	12.02.2010	13.02.2010
30.	Participated in'National symposium on Challenging areas in Forensic science' held at Department of Chemistry, Sri Guru Tegh Bahadur Khalsa College, University of Delhi, on Feb 5, 2010.	Department of Chemistry ,Sri Guru Tegh Bahadur Khalsa College, University of Delhi	Delhi	05.02.2010	05.02.2010
31.	Participated in, 'National workshop on Art and science of paper recycling', held at Miranda college, University of Delhi, on Jan 22- 23,2010.	Miranda college, University of Delhi	Delhi	22.01.2010	23.01.2010

S.	Professional	Organizing	Place	Duration	
No.	Development Activity Attended	Agency		From	То
32.	Participated in National Workshop on 'Role of analytical Techniques in Industry' held at Conference Centre and Kirori Mal College, University of Delhi on January 21- 22,2010.	Conference Centre and Kirori Mal College, University of Delhi	Delhi	21.01.2010	22.01.2010
33.	Attended a training course on Basic Computer concepts (MS-office) organized by Delhi University Computer centre from 01/06/2009 to 09/06/2009.	Delhi University Computer centre	Delhi	01.06.2009	09.06.2009

## **Organization of Professional Development Activities:**

**2020:** Data already given on page no

- Co-coordinator, 60 hour 'Add on Certificate course in Nanochemistry' 2018-2019 organized by Department of chemistry, Miranda House, university of Delhi.
- Co-coordinator, 60 hour 'Add on Certificate course in Nanochemistry' 2017-2018 organized by Department of chemistry, Miranda House, university of Delhi.
- Member, organizing committee, IUPAC 2019, Symposium on empowering women in chemistry: A global networking event held on 12 February, 2019 at Miranda House, University of Delhi.
- Member, organizing committee, One-day Indo-Hungarian symposium on Recent Advances in Chemistry and Biology (INHCAB-2017) held on 11 December 2017 in association with organized by University of Delhi and Department of Pharmaceutical Chemistry University of Debrecen, Debrecen, Hungary.

- Resource person in NCERT for development of assessment sheets for MOOCs and review of modules for MOOC on swayam portal for XI and XII class from 3 to 5 April, 2019.
- Resource person for development for guidelines for mentoring of students by Higher education Institutes(HEIs) under Rashtriya Avishkar Abhiyaan(RAA), Under PAB programme of MHRD, Government of India from March 25-28,2019.
- Resource person for development for guidelines for mentoring of students by Higher education Institutes(HEIs) under Rashtriya Avishkar Abhiyaan(RAA), Under PAB programme of MHRD, Government of India from March 18-20,2019.
- Participated in Roadshow on Nanotechnology held on October, 09, 2018 held at Sri Venkateshwara College, University of Delhi, New Delhi sponsored by government of Karnataka.
- Delegate at the third collaborative conclave on organ donation held on 29 Novmber, 2018 at India Habitat Centre, New Delhi
- Participated in the Workshop for Development of e-Resources in Science for Secondary Stage organized by Department of Education in Science and Mathematics, NCERT, NIE, New Delhi from 13-17 February 2017.
- Resource person in the Workshop for Development of e-Resources in Science for Secondary Stage organized by Department of Education in Science and Mathematics, NCERT, NIE, New Delhi from 05 to 09 December 2016.
- Participated in the Workshop for Development of e-Resources in Science for Secondary Stage organized by Department of Education in Science and Mathematics, NCERT, NIE, New Delhi from 26 to 30 September 2016
- Dr. Smriti Sharma Bhatia was member, Organizing Committee, for the workshop 'Computational Chemistry and Bioinformatics' organized by Department of Chemistry, Miranda House, University of Delhi in collaboration with DS-Biovia on Aug 27-28, 2015.
- Dr. Smriti Sharma Bhatia was member, Organizing Committee, Inspire Internship Programme 2015 an Initiative of Department of Science and Technology, Government of India organized by D S Kothari Centre for Research and Innovation in Science Education at Miranda House, University of Delhi.
- Dr. Smriti Sharma Bhatia was mentor, Workshop on Moleculer Modelling and Protein Docking for Inspire Internship Programme 2015 an Initiative of Department of Science and Technology, Government of India organized by D S Kothari Centre for Research and Innovation in Science Education at Miranda House, University of Delhi.
- Dr. Smriti Sharma Bhatia was Nodal person for Science Setu, a joint venture started in 2015 between National Institute of immunology and 14 colleges of University of Delhi to make science attractive to the best young minds.
- Dr. Smriti Sharma Bhatia was member, organizing committee of the first Science Setu Workshop on Stem Cell Science and Applications: Hype and Reality, held on 22 Sep 2015, at the Zakir Husain College, University of College.
- Dr. Smriti Sharma Bhatia was member, organizing committee of the Second Science Setu, Workshop, on DNA Fingerprinting, held on 22 Jan, 2016 at the Hindu College Auditorium, University of Delhi.
- Dr. Smriti Sharma Bhatia was Judge for Chemistry Symposium SPARK 2015 at D P S R K Puram on 24 Oct, 2015.
- Dr. Smriti Sharma Bhatia conducted a workshop on computational chemistry for students of class XI at Bluebells School International on 30 Nov,2015.

- Invited lecture on 'Computational Chemistry: Changing the way we experiment' at Vasant Valley School, Vasant kunj, Delhi on 3<sup>rd</sup> December, 2014 as part of their Annual Science Festival, Impact.
- Invited lecture on 'Atomic Structure: New Pedagogical Advances' at Navy Children School, Chanakyapuri on 25<sup>th</sup> june, 2014 followed by conducting a workshop for teachers.
- Extension lecture titled 'Chemistry: The old and the new' at Bluebells School International, Kailash Colony, New Delhi for students on 27th November, 2014.

## <u>2015-2009</u>

S.	Professional	Organizing/	Place	Dur	ation
No.	Development Activity Organized	Funding Agency		From	To
1.	Member, Organizing Committee, for the workshop 'Computational Chemistry and Bioinformatics' organized by Department of Chemistry, Miranda House, University of Delhi in collaboration with DS-Biovia on Aug 27-28, 2015.	Department of Chemistry, Miranda House, University of Delhi	Delhi	27.08.2015	28.08.2015
2.	Member, Organizing Committee, Inspire Internship Programme 2015 an Initiative of Department of Science and Technology, Government of India organized by D S Kothari Centre for Research and Innovation in Science Education at Miranda House, University of Delhi.	Department of Chemistry, Miranda House, University of Delhi	Delhi	13.07.2015	13.07.2015
3.	Mentor, Workshop on Moleculer Modelling and Protein Docking for	Department of Chemistry, Miranda	Delhi	July 13	July 17, 2015

S.	Professional	Organizing/	Place	Dura	ation
No.	Development Activity Organized	Funding Agency		From	To
	Inspire Internship Programme 2015 an Initiative of Department of Science and Technology, Government of India organized by D S Kothari Centre for Research and Innovation in Science Education at Miranda House, University of Delhi.	House, University of Delhi			
4.	Coordinator and a Resource Person for the workshop on 'Nanoparticles: Effects on Seedling Biology' organized on 29 May 2014 under Innovation Project MH-206 at Miranda House, University of Delhi.	Miranda House, University of Delhi	Delhi	29.05.2014	29.05.2014
5.	Coordinator and a Resource Person for the workshop on 'Computational Profiling of Some Nanosystems' organized on 30 May 2014 under Innovation Project MH-206 at Miranda House, University of Delhi.	Miranda House, University of Delhi	Delhi	30.05.2015	30.05.2015

S.	Professional	Organizing/	Place	Dura	ation
No.	Development Activity Organized	-	From	То	
6.	Coordinator, workshop 'Computational Nanochemistry For Beginners' held on 2 March 2013 at Miranda House, University of Delhi.	Miranda House, University of Delhi	Delhi	02.03.2013	02.03.2013
7.	Member, Organizing Committee, Nature at Work: Studying Biomolecules, a workshop for students held under DBT Star College Scheme on 25 September 2013 organized by D S Kothari Centre for Research and Innovation in Science Education and Department of Chemistry, Miranda House.	D S Kothari Centre for Research and Innovation in Science Education and Department of Chemistry, Miranda House.	Delhi	25.09.2013	25.09.2013
8.	Member, Organizing Committee, Mimicking Nature: Using Plant and Animal Resources for Chemical Reactions, a workshop for students held under DBT Star College Scheme on 5 March 2013 organized by D S Kothari Centre for Research and Innovation in Science Education and Department of	D S Kothari Centre for Research and Innovation in Science Education and Department of Chemistry, Miranda House.	Delhi	05.03.2013	05.03.2013

S.	Professional	Organizing/	Place	Dura	ation
No.	Development Activity Organized	Funding Agency		From	То
	Chemistry, Miranda House.				
9.	Member, Organizing Committee, Inspire Internship Programme 2013 an Initiative of Department of Science and Technology, Government of India organized by D S Kothari Centre for Research and Innovation in Science Education at Miranda House, University of Delhi.	D S Kothari Centre for Research and Innovation in Science Education and Department of Chemistry, Miranda House.	Delhi	15.12.2013	20.12.2013
10.	Mentor, Workshop on Moleculer Modelling and Protein Docking for Inspire Internship Programme 2013 an Initiative of Department of Science and Technology, Government of India organized by D S Kothari Centre for Research and Innovation in Science Education at Miranda House, University of Delhi.	D S Kothari Centre for Research and Innovation in Science Education and Department of Chemistry, Miranda House.	Delhi	15.12.2013	20.12.2013
11.	Member, Organizing Committee, Inspire Internship Programme 2012 an Initiative of Department of Science and Technology, Government of India organized by D S	D S Kothari Centre for Research and Innovation in Science Education and Department of	Delhi	16.07.2012	20.07.2012

S.	Professional	Organizing/	Place	Dura	ation
No.	Development Activity Organized	Funding Agency		From	To
	Kothari Centre for Research and Innovation in Science Education at Miranda House, University of Delhi.	Chemistry, Miranda House.			
12.	Member, Organizing Committee, The International Symposium on Green Chemistry & Sustainable Development organized by Rasayanika, the Chemical Society and MH-Vatavaran, the Environment Society under the D. S.Kothari Centre for Research and Innovation in Science Education in collaboration with Vigyan  Prasar from 30 – 31 March 2012.	Rasayanika, the Chemical Society and MH-Vatavaran, the Environment Society	Delhi	30.03.2012	31.03.2012
13.	Mentor, Workshop on Moleculer Modelling and Protein Docking for Inspire Internship Programme 2012 an Initiative of Department of Science and Technology, Government of India organized by D S Kothari Centre for Research and Innovation in Science	D S Kothari Centre for Research and Innovation in Science Education and Department of Chemistry, Miranda House.	Delhi	16.07.2012	20.07.2012

S.	Professional	Organizing/	Place	Dura	ation
No.	Development Activity Organized	Funding Agency		From	To
	Education at Miranda House, University of Delhi.				
14.	Mentor, Workshop on Moleculer Modelling and Protein Docking for Inspire Internship Programme 2011 an Initiative of Department of Science and Technology, Government of India organized by D S Kothari Centre for Research and Innovation in Science Education at Miranda House, University of Delhi.	D S Kothari Centre for Research and Innovation in Science Education and Department of Chemistry, Miranda House.	Delhi	11.07.2015	15.07.2015
15.	Member, Organizing Committee, Inspire Internship Programme 2011 an Initiative of Department of Science and Technology, Government of India organized by D S Kothari Centre for Research and Innovation in Science Education at Miranda House, University of Delhi.	D S Kothari Centre for Research and Innovation in Science Education and Department of Chemistry, Miranda House.	Delhi	11.07.2015	15.07.2015

# Invited lectures / Resource Person

S.No	Title of Lecture /Paper	Invit ed Lecut re/R esour ce Perso n	Natu re of Progr amm e*	Details	Leve l**	Date of pres enta tion	Dur atio n (in min utes )	Sponsor ing Agency
1.	Nanotec hnology: the promise and the challeng e.	Invite d lectur e	Webi nar	Depart ment of Chemis try under the aegis of IQAC, Ramjas College organiz es Nationa l Webina r	Nati onal	Febr uary 02, 2022	https://www.youtube.com/watch?v=juNsaGSWTwE&t=4247s	Ramjas college, Universi ty of Delhi
2.	In silico chemist ry and its applicati ons.	Invite d lectur e	Facult y Devel opme nt Progr amm e	Virtual Faculty Develo pment Progra mme on 'Recent Advanc es in Chemis try'		Dece mbe r 27, 2021	60	Departm ent of Chemist ry, School of Science, RK. Universi ty, Rajkot, Gujarat
3.	An introduc tion to Nanotec hnology.	Resou rce perso n	Onlin e refres her progr amm e	Two- week online Refresh er Progra mme in Physics	Nati onal	Octo ber 27- Nove mbe r 10, 2021	https://www.youtube.com/watch?	Pandit Madan Mohan Malaviya National Mission on Teacher s and Teaching (PMMM

							Ylug 3Ph QE&t =17s  https ://w ww.y outu be.co m/w atch? v=ag Mm5 1Zr8 -w  https ://w ww.y outu be.co m/w atch? v=QS ITA Rkv2 Y	NMTT) scheme of Ministry of Educatio n, Govern ment of India
4.	NPTEL and Swayam courses: An introduc tion.  (Encl. No. 81)	Resou rce perso n	Webi nar	Webina r on "Aware ness progra m on NPTEL and Swaya m courses "	Nati onal	Sept emb er 14, 2021	75 minu tes	National Educatio n society, Jawaharl al Nehru new College of Engineer ing, Shivamo gga
5.	Argus Lab	Resou rce perso n	Work shop	Organiz ed at Heritag e and Autono mous Institut		Dece mbe r 22. 2020	120	Departm ent of Biotechn ology, Ministry of Science

				ion 'Kanya Maha V idyalay a', Jalandh ar				and Technol ogy, Govern ment of India
6.	Learnin g Chemist ry through Comput ers: ArgusLa b	Resou rce perso n	Work	Faculty Develo pment Progra m on 'Applic ation of ICT in Teachi ng and Chemic al researc h' organis ed by Guru Angad Dev Teachi ng Learnin g Centre, SGTB Khalsa College, Univers ity of Delhi	Nati	Octo ber 06- 10, 2020	120	Pandit Madan Mohan Malaviya National Mission on Teacher s and Teaching (PMMM NMTT) of MHRD and National Educatio n Society( R) Jawaharl al Nehru New College of Engineer ing, Shivamo gga
7.	Develop ment for guidelin es for mentori ng of students by Higher educatio n Institute	Resou rce perso n	Work shop	Organiz ed by Rashtri ya Avishk ar Abhiya an(RAA ), Under PAB Progra	Nati onal	Marc h 25- 28, 2019	Full day for 5 days	MHRD, Govern ment of India

				T	1		1	
	s(HEIs).			mme of MHRD, Govern ment of India				
8.	Develop ment for guidelin es for mentori ng of students by Higher educatio n Institute s(HEIs).	Resou rce perso n	Work shop	Organiz ed by Rashtri ya Avishk ar Abhiya an (RAA), Under PAB Progra mme of MHRD, Govern ment of India	Nati onal	Marc h 18- 20, 2019	Full day for 5 days	MHRD, Govern ment of India
9.	Introduc tion to NINITHI Softwar e.	Resou rce perso n	Work shop	Worksh op on Introdu ction to Ninithi Softwar e	State	April 20, 2018	120 minu tes	Miranda House, Universi ty of Delhi
10.	Introduc tion to Comput ational Chemist ry(Argu s Lab).	Resou rce perso n	Work shop	Worksh op on Introdu ction to Comput ational Chemis try	State	April 06, 2018	180 minu tes	Miranda House, Universi ty of Delhi
11.	Develop ment of e- Resourc es in Science for Seconda ry Stage.	Resou rce perso n	Work shop	Organiz ed by Depart ment of Educati on in Science and Mathe matics, NCERT,	Nati onal	Janu ary 01- 05, 2018	Full day for 5 days	Departm ent of Educatio n in Science and Mathem atics, NCERT, NIE, New

				NIE,				Delhi
				New Delhi				
12.	Develop ment of e- Resourc es in Science for Seconda ry Stage.	Resou rce perso n	Work shop	Organiz ed by Depart ment of Educati on in Science and Mathe matics, NCERT, NIE, New Delhi	Nati onal	Febr uary 13- 17, 2017	Full day for five days	Departm ent of Educatio n in Science and Mathem atics, NCERT, NIE, New Delhi
13.	Develop ment of e- Resourc es in Science for Seconda ry Stage.	Resou rce perso n	Work shop	Organiz ed by Depart ment of Educati on in Science and Mathe matics, NCERT, NIE, New Delhi	Nati onal	Dece mbe r 5- 9, 2016	Full day	Departm ent of Educatio n in Science and Mathem atics, NCERT, NIE, New Delhi
14.	Develop ment of e- Resourc es in Science for Seconda ry Stage.	Resou rce perso n	Work shop	Organiz ed by Depart ment of Educati on in Science and Mathe matics, NCERT, NIE, New Delhi	Nati onal	Sept emb er 26- 30, 2016	Full day for five days	Departm ent of Educatio n in Science and Mathem atics, NCERT, NIE, New Delhi

### 2020

• Staff Advisor, Anukriti, The Dramatics Society of Miranda House, University of Delhi, 2018-2019.

## 2019-2015

- Staff Advisor, Anukriti, The Dramatics Society of Miranda House, University of Delhi, 2018-2019.
- Staff Advisor, Anukriti, The Dramatics Society of Miranda House, University of Delhi, 2017-2018.
- Admissions committee, Department of Chemistry, Miranda House, University of Delhi, 2017-2018
- MH Vatavaran, Miranda House Environment Society, University of Delhi 2016-2017

SR.	YEAR	TYPE OF ACTIVITIES	FROM	ТО
NO.	GT 1 TT 1 D 1 V 2 G D	PERFORMED	2010 2011	
1	STAFF ADVISOR,	STAFF ADVISOR,	2010-2011	
	TRICORD	TRICORD (THE LIFE	SESSION	
		SCIENCES SOCIETY)		
		,PART OF EXTENDED		
		ADMISSSIONS		
		COMMITTEE, CS, PART		
		OF HINDI DRAMATICS		
		SOCIETY		
2	CONVENOR, TRICORD,	STAFF ADVISOR FOR	2011-	
	COURSE CO-	STUDENT UNION	2012SESSION	
	COORDINATOR, FOR	,STAFF ADVISOR,		
	THE ADD-ON	TRICORD (THE LIFE		
	CERTIFICATE COURSE	SCIENCES SOCIETY),		
	"GREEN CHEMISTRY	COURSE CO-		
	AND ENVIRONMENT"	COORDINATOR FOR		
	STUDENT UNION	THE ADD-ON		
	ADVISOR	CERTIFICATE COURSE		
		"GREEN CHEMISTRY		
		AND ENVIRONMENT",		
		MENTOR &		
		CONDUCTED		
		WORKSHOP ON		
		MOLECULER		
		MODELLING AND		
		PROTEIN DOCKING FOR		
		INSPIRE INTERNSHIP		
		PROGRAMME,ON THE		
		ORGANIZING		
		COMMITTEE OF		
		INSPIRE INTERNSHIP		
		PROGRAMME		

2	CTUDENT UNION	CTAFE ADVICOD FOR	2012 2012	
3	STUDENT UNION ADVISOR	STAFF ADVISOR FOR STUDENT UNION ,	2012-2013 SESSION	
	ADVISOR	<u> </u>	SESSION	
		MENTOR & CONDUCTED		
		WORKSHOP ON		
		MOLECULER		
		MODELLING AND		
		PROTEIN DOCKING FOR		
		INSPIRE INTERNSHIP		
		PROGRAMME,ON THE		
		ORGANIZING		
		COMMITTEE OF		
		INSPIRE INTERNSHIP		
		PROGRAMME,		
		PROSPECTUS		
4	CT A PP	COMMITTEE 2012-2013	2012 2014	
4	STAFF	STAFF ADVISOR,	2013-2014	
	ADVISOR,RASAYANIKA	RASAYANIKA	SESSION	
		(CHEMICAL SOCIETY),		
		STAFF ADVISOR, MH-		
		VATAVARAN, MENTOR		
		& CONDUCTED		
		WORKSHOP ON		
		MOLECULER		
		MODELLING AND		
		PROTEIN DOCKING FOR		
		INSPIRE INTERNSHIP		
		PROGRAMME,ON THE ORGANIZING		
		COMMITTEE OF		
		INSPIRE INTERNSHIP		
5	STAFF	PROGRAMME STAFF ADVISOR,	2014-2015	
3	ADVISOR,RASAYANIKA	RASAYANIKA	SESSION	
	ADVISOR, KASATANIKA	(CHEMICAL SOCIETY),	SESSION	
	STAFF ADVISOR, MH	STAFF ADVISOR, MH-		
		·		
	VATAVARAN, STAFF ADVISOR OF	VATAVARAN, ORGANIZED A		
	FILM SOCIETY	SENSITIZATION		
	I IDM OOCIE I I	WORKSHOP ON DISHA		
		SOCIETAL RESEARCH		
		FELLOWSHIP ON		
		FRIDAY, 07 MARCH		
		2014,STAFF ADVISOR		
		OF FILM SOCIETY		
6	STAFF	STAFF ADVISOR,	2015	PRESENT
U	ADVISOR, RASAYANIKA	RASAYANIKA	2015	LVESENI
	ANINIA I ACAN, NOCI I UNI	(CHEMICAL SOCIETY),		
	,	STAFF ADVISOR, MH-		
l		STAFF ADVISOK, MITI-		

STAFF ADVISOR, MH	VATAVARAN, MENTOR	
VATAVARAN	& CONDUCTED	
	WORKSHOP ON	
	MOLECULER	
	MODELLING AND	
	PROTEIN DOCKING FOR	
	INSPIRE INTERNSHIP	
	PROGRAMME,ON THE	
	ORGANIZING	
	COMMITTEE OF	
	INSPIRE INTERNSHIP	
	PROGRAMME	

## Membership/Fellowship of Learned bodies / Societies

- LIFE MEMBER OF THE INDIAN SCIENCE CONGRESS ASSOCIATION (ISCA), MEMBERSHIP NO. L27218
- LIFE MEMBER OF MATERIALS RESEARCH SOCIETY OF INDIA (MRSI), MEMBERSHIP NO.LMB2529
- LIFE MEMBER OF INDIAN WOMEN SCIENTISTS ASSOCIATION (IWSA)
- LIFE MEMBER OF ASSOCIATION OF CHEMISTRY TEACHERS (ACT), MEMBERSHIP NO. 1705
- LIFE MEMBER OF INDIAN SOCIETY OF ANALYTICAL SCIENTISTS (ISAS)
- SENIOR LIFE MEMBER ASIA-PACIFIC CHEMICAL, BIOLOGICAL& ENVIRONMENTAL ENGINEERING SOCIETY (APCBEES) MEMBERSHIP NO.: 101157
- LIFE MEMBER OF WORLD ACADEMY OF SCIENCE, ENGINEERING AND TECHNOLOGY(WASET)
- LIFE MEMBER OF SOCIETY FOR THE ADVANCEMENT OF LIBRARY AND INFORMATION SCIENCE