

# Faculty Details proforma for DU College Web-site



Title Dr.	First Name	Neeti	Last Name	Misra	Photograph
Designation	Associate Professor	•			
Address	Department of Chemistry				
	Acharya Narendra [				
	Govindpuri, Kalkaji,				
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Phone No	011-26412547, 011-	-26293224			7
Office					
Residence					
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Mobile	no otimiero Condo du oo	i.e.			
Email/	neetimisra@andc.du.ac	.in			
Web-Page	11.5				
Educational Qua	alifications				
Degree	Institution				Year
B.Sc.(Hons)	Hindu College, Univ	ersity of De	lhi		1992
Chemistry					
M.Sc.	Hindu College, Univ	ersity of De	lhi		1994
Chemistry					
Ph.D.	Department of Che	mistry Unive	ersity of Delh	i	1999
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## Career Profile

Associate Professor, Acharya Narendra Dev College (2009-)

Assistant Professor, Acharya Narendra Dev College (July 2006-2009)

Senior Lecturer, Acharya Narendra Dev College (16<sup>th</sup> July-2006)

Lecturer, temporary, Kirori Mal College (1st August1996- 15th July 2003)

## **Administrative Assignments**

Coordinator, B.Sc. Physical Science with Chemistry (2023-)

Convenor, Finance Committee (2019-22)

Convenor, Career Counselling and Placement Cell (2018-20)

Convenor Workload and Timetable Committee (2016-2018, 2012-13)

Member of Courses Committee, Department of Chemistry, DU (2012-14)

Teacher-in-Charge Chemistry (2010-2012)

Convenor, Library Committee (2010-2012)

Convenor, Foreign Language Courses (2006-2009)

Co-convenor of the library committee (2008-10).

Areas of Interest / Specialization

**Physical Chemistry, Computational chemistry** 

Subjects Taught

## Physical Chemistry papers of B.Sc. (Hons)Chemistry and B.Sc. Programme

Currently teaching: Quantum Chemistry and Spectroscopy

Applications of computers in Chemistry

**IT Skills for Chemists** 

#### Research Guidance

#### **Publications Profile**

### **Books** published

- 1. Understanding chemistry through numerical problems, R.R. Misra, **Neeti Misra**, Arya Book Depot (2001).
- 2. Chemistry –XI, R.R. Misra, **Neeti Misra**, Arya Book Depot (2003).
- 3. Chemistry –XII, R.R. Misra, Neeti Misra, Arya Book Depot (2003).
- 4. Complete Course in Chemistry, Class XI, R.R. Misra, Neeti Misra, Preeti Misra, Arya Publishing Company (2006).
- 5. Complete Course in Chemistry, Class XII, R.R. Misra, Neeti Misra, Preeti Misra, Arya Publishing Company (2007).
- 6. Numericals in Chemistry, Class XII, R.R. Misra, Neeti Misra, Avichal Publishing Company (2008)
- 7. ISC Practical Chemistry, Class XII, R.R. Misra, Neeti Misra, Anju Srivastava, Reena Jain, Arya Publications (2008).
- 8. Understanding ISC Chemistry, Class XII, R.R. Misra, Neeti Misra, Anju Srivastava, Reena Jain, Arya Publications (2008).
- 9. ISC Practical Chemistry, Class XI, R.R. Misra, Neeti Misra, Anju Srivastava, Reena Jain, Arya Publications (2008).
- 10. ISC Practical Chemistry, Class XII, R.R. Misra, Neeti Misra, Anju Srivastava, Reena Jain, Arya Publications(2009).
- 11. Easynow manuals, Vol.1-6, Savithri Singh & Neeti Misra, 2009, CEMCA publication.
- 12. Four Chapters in class XII book, CBSE-i
- 13. Chemistry Class-XII, Dr. R. R. Misra, Dr. Neeti Misra, Arya Publishing Company, Second Edition 2014.
- 14. Chemistry Class-XI, Dr. R. R. Misra, Dr. Neeti Misra, Arya Publishing Company, 2014.
- 15. Numerical Problems in Chemistry, Class XII, Dr. R. R. Misra, Dr. Neeti Misra, Dr. Sonalika Vaidya, Avichal Publishing company (2014)
- 16. Part of editorial team for NCERT Chemistry Class XII (2006)

# **Research Publications:**

- 1. Interpolymer complexes of a graft copolymer with polyelectrolytes and equivalent blends of binary homopolymer complexes: A comparative study of their stability and thermodynamic parameters. S.K. Chatterjee, **Neeti Misra**, Macromolecular Chemistry and Physics, 197, 4193-4206 (1996)
- 2. Interpolymer association between random and graft acrylic copolymers with poly(ethylene imine):effects of copolymer structures. S.K. Chatterjee, **Neeti Misra**, Polymer, 38(6), 1485-1490 (1997).
- 3. Copolymer-polyelectrolyte- homopolymer associations: Effect of neighbouring comonomer units and copolymer structure on interpolymer complexation. S.K. Chatterjee, **Neeti Misra**, Polymer International, 47, 367-374 (1998).
- 4. Fluorescence studies of complexation of auramine O labeled poly(methacrylic acid) and related acrylic copolymers with non-ionic homopolymers. S.K. Chatterjee, **Neeti Misra**, J. of Macromolecular Science-Pure and Applied Chemistry A36(1), 85-104 (1999).

- 5. Multitarget Diallyl Disulfides (DADS) against Aβ Aggregation: Screening through Molecular Docking with Aβ<sub>42</sub> & Zn<sup>II</sup>-Aβ<sub>16</sub>, ADME, DFT & Synthetic Strategy. Sugandha Singhal, Pankaj Khanna, **Neeti Misra** and Leena Khanna. (2021) Chemistry Select, 6(17), 4112-4123
- 6. A DFT study on Diels-Alder reaction of dibenzazepine and 2,5-dimethylfuran using different solvents and temperature conditions. Shilpa Yadav, **Neeti Misra**, Pankaj Khanna, Mansi, Kriti Batra & Leena Khanna, Polycyclic Aromatic Compounds, March 2022 (online),43(4), 2908-2919, (2023) (print).
- 7. "In water synthesis of bis(indolyl)methanes: a review", Synthetic Communications, 2892-2923, 51. Leena Khanna, Mansi, Shilpa Yadav, **Neeti Misra** and Pankaj Khanna Synthetic Communications, 2892-2923, 51 (2021).
- 8. Copper-Bisbenzimidazole Complexes as Biomimetic Catalysts in Organic Transformations. Manisha Jain, Shilpa Yadav, Mansi, **Neeti Misra**, Pankaj Khanna and Leena Khanna. Mini-Rev. Org. Chem. (2023) (E-pub Ahead of Print)

# Conference / Presentations / Workshops

Conference Pub	lications		
Year of Publication	Title	Journal	Co-author/s
2005	How to make classroom chemistry teaching an efficient way of learning?	National Symposium on Innovative Methods in Chemistry Education IMCE -2005 organised by Indian Association of Chemistry Teachers held at CDRI, Lucknow, India	Dr. Manisha Jain
2005	How to make Chemistry Lab an Efficient place for learning while working?	National Symposium on Innovative Methods in Chemistry Education IMCE -2005 organised by Indian Association of Chemistry Teachers held at CDRI, Lucknow, India	Dr. Manisha Jain
2010		Sixth Pan-Commonwealth Forum on Open Learning, 24-28 <sup>th</sup> Nov. 2010, Kochi, Kerala.	

2011	Initiative of Acharya Narendra Dev College in promoting Open Source	International Conference "Open Paradigms in EducatioN (OPEN 2011)"	Dr Subhash Kumar
2012	Role of education in fostering creativity and innovation	Academic Congress conducted by University of Delhi	
2016	An innovative undergraduate virtual chemistry laboratory: Design and Learning Outcomes	19 <sup>th</sup> CRSI National Symposium in Chemistry (University of North Bengal, Siliguri, Darjeeling, West Bengal, on 14 <sup>th</sup> - 16 <sup>th</sup> July 2016).	Vibha Gaur, Pankaj Khanna et al
2017	Designing a Virtual Chemistry Lab for Undergraduate Students	3 <sup>rd</sup> India International Science Festival under SYPOG-Young Scientist's Conclave, held at Anna University, Chennai (13 <sup>th</sup> -16 <sup>th</sup> October 2017).	Vibha Gaur, Rahul Dwivedi, Manish Kumar Singh, Sagar Patwal, Sachin Kumar, Shivam Agarwal, Parag Jain, Gaurav Prakash, Kunaal Madaan, Palak Sharma, Shivani Goyal.
2021	'Diels-alder reaction of dibenzazepine and 2,5-dimethylfuran: A DFT study' in International seminar on Recent advances in Chemistry and Material Sciences	Conclave (2021) and	Shilpa Yadav, Leena Khanna
2021	Oral presentation on 'DFT study on [4+2] cycloaddition reaction with furan derivatives at thermal conditions in different phases'		· · ·

# **Projects**

- **IEDC Project** (Innovation & Entrepreneurship Development Centre) "Development of Low-Cost disinfectant using cow urine," under DST sponsored scheme, 2014-15.
- **Innovation Project**, "Mobile Phone as a real time sensor based undergraduate laboratory" University of Delhi, 2012-13.

# Elite Projects (Co-mentor):

- 1. Computational Studies on some Inorganic Compounds Using Avogadro and Gaussian Software 2021-22 (Dr Manisha Jain, Dr Neeti Misra)
- 2. To extract the coloured component of Hibiscus rosa-sinensis flower and study its potency as a pH indicator, 2019 (with Dr Neeti Misra and Dr Kavita Mittal)
- 3. Detection of adulterants in milk from different sources & Synthesis of metal complexes of Schiff bases using sonication, 2019 (Dr Neeti Misra, Dr Kavita Mittal and Dr Leena Khanna, USBAS, GGSIP University)
- 4. Study and extraction of medicinally important plant *S. chirata* & examination of chemical adulteration in food items, 2018 (with Dr Neeti Misra and Dr Kavita Mittal)
- 5. Spectrophotometric studies of Turmeric extracts and review of its medicinal properties, 2017 (with Dr Neeti Misra and Dr Leena Khanna, USBAS, GGSIP University)
- 6. Study the decomposition of hydrogen peroxide at different temperatures and different amounts of manganese dioxide(2010-11)
- 7. Study the variation of vapour pressure with temperature for different liquids" (2010-11)
- 8. Study the kinetics of iodination of acetone by volumetric, colourimetric method and vernier probe and compare the results. (2011-12)
- 9. Study the kinetics of reaction between potassium iodide and potassium persulphate by volumetric, colourimetric method and vernier probe and compare the results. (2011-12)
- 10. Characterization of polymer samples and their complexes with metals. (2011-12)
- 11. Study the spoilage of curd under various conditions(2011-12)

## **Awards and Distinctions**

## **Association With Professional Bodies**

- 1. Life member of Indian Society of Analytical Sciences
- 2.Life member of Indian Association of Chemistry Teachers

### Other Activities

#### (a) Curriculum development:

- 1. Member of syllabus drafting committee as per UGCF 2022 based on NEP 2020 guidelines for B.Sc. (H) Chemistry (2022-)
- 2. Attended a meeting to discuss DSE syllabus of B.Sc. (Honours) Chemistry, organised by Department of Chemistry, University of Delhi on 13th September 2019.
- 3. Coordinator of syllabus revision for three courses under LOCF
- 4. Member of the syllabus revision committee for chemistry (2012-13)
- 5. Member of the syllabus revision committee for chemistry (2009-10).

- 6. Member of the sub-committee of the Committee of Courses of the Department of Chemistry, University of Delhi for the revision of B.Sc. (Honours) and B.Sc. Programme syllabus. (2008).
- 7. Member of the committee to review the Restructured course of B.Sc. Programme (2007).
- 8. Co-opted member of the committee for the development of Analytical Techniques paper of Restructured course of B.Sc. Programme (2004-05)

# (b) Workshops attended as subject expert

- 1. Invited as Subject Matter Expert for three days workshop regarding Review of Scripts and Videos for New Cycle of NCERT School MOOCs on SWAYAM from 21st- 23rd of October, 2019
- 2. Participated in a one day workshop for Review and Curation of content for NROER and DIKSHA portal, organized by CIET, NCERT, on 20th June 2018.
- 3. Participated in a two day workshop to review the modules developed by SMEs in the subject of Chemistry for MOOCs (Massive Open Online Courses) for Senior Secondary School Education on 8-9 May 2017.
- 4. Invited as a subject expert in a MOOC review workshop being organized by CIET from 22 to 24th March 2017.
- 5. Attended one day 'Workshop for Identification of Concepts and Concept Maps for development of e-contents in Chemistry, at CIET, NCERT on 15th February 2016
- 6. Developed question bank for JEE online portal under UDAN scheme of CBSE (2014-15)
- 7. Guest lecturer in Orientation for Chemistry PGT teachers of Jawahar Navodaya Vidyalaya conducted by Navodaya Leadership Institute at Dhoom Manikpur, Dadri, G. B. Nagar, June 2012
- 8. Invited by HBCSE as an expert in 6 day Resource generation camp for chemistry organized by Homi Bhabha Centre for Science and Education (HBCSE), Mumbai, 2011.
- 9. Invited by HBCSE as an expert for resource generation and paper setting, 2012
- 10. Participated in the Workshop on "Preparation of interactive Video Guide for Science and Mathematics Kits for Secondary Stage" from 26<sup>th</sup>-29<sup>th</sup> July, 2010 at NIE-Workshop, NCERT.
- 11. Acted as a resource person in 8 days workshop for school teachers' trainers, organized by Education and research centre, Vidya Bhavan Society, Udaipur from 2nd -9th June 2008.
- 12. Participated as a resource person in a Workshop for Chemistry Class XII teachers of various Army Public Schools of India organized by Army Public School, Shankar Vihar, Delhi on 22 June 2008.
- 13. Participated in several Supported Blended Learning Workshops under UK India Education and Research Initiative program (UKIERI). (2007)
- 14. Developed e-content for Class XI under SAKSHAT-One stop educational portal of Ministry of HRD (2006).

# (c) Content creation for ILLL, University of Delhi

- 1. Developed study material for chemistry practicals under B.Sc. Programme courses for Institute of Life Long Learning, University of Delhi. (2007-2008)
- 2. Developed study material for physical chemistry topics under B.Sc. Programme courses for Institute of Life Long Learning, University of Delhi. (2007-2008)
- 3. Developed quizzes for physical chemistry topics for Institute of Life Long Learning, University of Delhi. (2009)

## (d) Facilitator/Resource person for OER in collaboration with CEMCA, Common Wealth of Learning

- 1. Facilitator in OER workshop organized at Mumbai University in collaboration with Commonwealth of Learning, November 2012.
- 2. Facilitator and resource person in OER workshop for Mumbai University organized in collaboration with Commonwealth of learning at Acharya Narendra Dev College from 29 Nov-2 Dec 2011.
- 3. Facilitator in a workshop on Application of Free/Open Source Software (FOSS) in Science Teaching and Research conducted by Acharya Narendra Dev College in association with NRCFOSS, Anna University, Chennai on 14-15<sup>th</sup> April, 2010.
- 4. Participated as a facilitator in a Seminar on FOSS: Awareness and Possibilities conducted by Acharya Narendra Dev College in association with NRCFOSS, Anna University, Chennai at University of Delhi, South Campus on April 16, 2010
- 5. Organized a four day workshop titled Easy Now Techniques: Workshop on Multimedia Content Development from May 4-7, 2010.
- 6. Participated as a facilitator in WikiEducator workshop in the CIET, NCERT.(2011)

Participated in a five day Advanced EasyNow Trainers' Workshop to provide Educational Support to Online Learning conducted by Wawasan Open University, Penang, Malaysia in collaboration with CEMCA, New Delhi from 21 to 25 June 2010, at the Wawasan Open University, Penang, Malaysia.
 Participated as a facilitator in L4C workshops of WikiEducator in the college held on Apr 13-17, May 12-15 and May 16-18, 2009.
 Participated as a facilitator in WikiEducator workshop held for the school teachers in the Shri Ram School, Vasant Vihar.
 Participated as a facilitator in WikiEducator workshop in the CIET, NCERT.(2009)
 Organized a stall to promote EasyNow techniques at the exhibition of The Manthan Awards South Asia 2009 on 18<sup>th</sup> and 19<sup>th</sup> December 2009.

Signature of Faculty Member