Dr. Neelima Gupta

Professor in Chemistry

Contact Details -

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Other Current Assignments

Hony. Director, P.G. School of Physical Sciences, UoR
Addl. Director (Nanotechnology), Centre for Converging Technologies, UoR
Course Coordinator, Computer Assisted Drug Design, DIC-RU
Nodal Officer, Aanandam Program, Univ. of Rajasthan
Convener, COC in Pharmaceutical Chemistry
Convener, COC in Anandam Program
Member, COC in Biochemistry
Secretary, Chemical Research Society of India, Bengaluru

Professional Experience

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2012 – contd.	Professor, University of Rajasthan, Jaipur
2006 - 2012	Associate Professor, University of Rajasthan, Jaipur
	Teaching both PG (at Univ. Department) and UG (University Maharaja College)
2009-2009	Visiting Scientist, Philipps University, Marburg, Germany
1996-2006	Assistant Professor, University of Rajasthan, Jaipur
1996-1996	Post-Doctoral Fellow - DFG (German Research Foundation)
	Institute of Inorganic Chemistry, E.M.A. University of Greifswald, Germany
1994-1996	Research Associate (UGC), University of Rajasthan, Jaipur
1992-1994	Lecturer, Govt. College, Directorate of College Education, Govt. of Rajasthan
1991-1992	Senior Research Fellow (CSIR), Univ. of Rajasthan, Jaipur
1989-1991	Junior Research Fellow (NET-UGC), Univ. of Rajasthan, Jaipur

Other Positions Held

Coordinator, UGC-SAP (CAS in Chemistry 2017-2019) Vice-Principal, University Maharaja College, UoR (2019-2021) Member, BOS in Chemistry (2017-2020) Member, COC in Biochemistry (2014-2017, 2017-2020) Bhuvan App Coordinator, UoR (RUSA 1.0) Joint Director, CCT, UOR (2018-2021) Subject Coordinator, Chemistry, CCT, UOR (2010-2018) Resource Person, Satellite Communication (SATCOM) Classes, DST, Govt. of Rajasthan (2011-18) Council Member, Chemical Research Society of India (2014-2017, 2017-2020) Founder Coconvener, CRSI-Rajasthan Chapter (2011-2020)

Achievements/Awards/Honors:

- *Indian Patent* **354474** "A green process for making a new polymorph (Form N) of Sucrose" Date of Grant **24-12-2020**
- ISCB-Distinguished Women Scientist Award 2019" by Indian Society of Chemists and Biologists
- Secretary, Governing Council (2020-2023), Chemical Research Society of India, Bangaluru
- Council Member (2014-2017 & 2017-2020), Chemical Research Society of India, Bangaluru
- Received *Award* for **Excellence in Research** among Top Researchers of the University of Rajasthan on Republic day (2009).
- Honored for Excellence in Research by the Chancellor during "National Seminar on Botanical Products", University of Rajasthan, Jaipur (2005).
- **Fast Track Project** for **Young Scientists**(FTPYS) awarded by Department of Science and Technology, Government of India (2002) evaluated Excellent on completion.

<u>Visits Abroad</u>

- Post-Doctoral Fellow German Research Foundation (DFG) (April 1996- Dec. 1996)
 - At EMA University of Greifswald, Germany
- *Visiting Scientist* Philipps University of Marburg, Germany (Sep Oct 2009)
- *Invited Speaker* 22nd International Conference on Phosphorus Chemistry,
 - Hungarian Chemical Society, Budapest, Hungary (2018)



Academic Qualifications

- B.Sc. (1985) Kurukshetra University, Kurukshetra
- M.Sc. (1987) Organic Chemistry, Kurukshetra University, Kurukshetra
- NET (1988) UGC-CSIR, JRF Qualified
- Ph.D. (1992) University of Rajasthan, Jaipur in Synthetic Organic Chemistry (Mentor-Prof. R.K. Bansal) Thesis Title – "Synthesis and Reactions of Azaphospholopyridines and Related Systems"

Three Year German Language Course, University of Rajasthan, Jaipur

Certificate Course	(1998) II nd Position
Diploma Course	(1999) I st Position
Post-Diploma Course	(2001) I st Position

Major Areas of Research:

Organic Synthesis, Ylid Chemistry, Heterocyclic Chemistry, Organophosphorus Compounds, Low Coordinated Phosphorus Heterocycles, Computational Chemistry, Molecular Modeling, Drug-biomolecular interactions and Drug Designing

Research Experience

	Total No. of Indexed Research Publications	75	
	Patents 3563/DEL/2011 (Granted on 24/12/2020)		
	Book Chapters in International Reference Books	09	
	Review articles		
	Total Research Projects completed as PI and CoPI	02+06	
	Fast Track Young Scientist Scheme (DST) Project	01	
	Indo-German Cooperation Project (DST-DFG)	01	
	No. of Ph.D. Awarded (working)	12 (5)	
	PhD Students worked in Indo-German collaborative projects in Germany	03	
	Dissertations supervised (M.Sc./ M.Tech.)	16/01	
	Mentored DSKothari-PDF	01	
	Mentored Innovation Fellow (DIC)	01	
	Inaugural / Keynote Lecture in National/International Conferences	8	
	Invited lectures in International Conferences/Workshops	8	
	Invited lectures in National Conferences/Workshops	9	
	Chaired Sessions in National/International Conferences	20	
	Lectures in Refresher courses / Faculty Development Program	15	
	Extension/Invited Lectures in Colleges / Universities	40	
	International conference attended / Paper presented	20/6	
	National Conference/Symposium/Workshop participated/Paper presented	35/9	
	International /National Conferences Organized (Org. Secretary/Convener)	6 + 5	
	Workshops / Seminars/Popular Lectures Organized		
Refresher Courses Co-coordinated			
	ORCID ID - 0000-0001-8909-3765; Scopus (ID-7402490338): H-Index = 18		
Researchgate: H-Index = 19, Citations 866, RG Score = 32.57			
	Google Scholar: H-Index = 20, Citations 994, i10 Index = 35		

Authored Book Chapters in International Reference Books

- Science of Synthesis-Houben-Weyl Methods of Molecular Transformations : six chapters in Vol 13 published by Thieme:Stuttgart, Germany (2003)
- *Topics in Heterocyclic Chemistry*, published by Springer-Verlag, Germany (2010)
- *Methods in Pharmacology and Toxicology*, published by Springer-Nature, Germany (2019)
- *Emerging Trends of Research in Chemical Sciences: Qualitative and Quantitative Studies and Applications* published by Apple Academic Press (CRC) - Taylor & Francis (2021)

<u>Authored Books</u>

- Coauthored **Text Book Organic Chemistry** for XI class (in Hindi) approved by *Rajasthan Board of School Education*, published by Jaipur Publishing House, Jaipur (1998-2000).
- Coauthored **Text Book Practical Chemistry** for XI and XII class (in Hindi) approved by *Rajasthan Board of School Education*, published by Jaipur Publishing House, Jaipur (1998-2000).
- **Contributor** to the **Study material** of B.Sc. III Year Chemistry Course of Vardhman Mahaveer Open University, Kota (2010).

Membership of Professional Societies

Chemical Research Society of India, Bangalore - Life Member Indian Chemical Society, Kolkata - Life Member Indian Science Congress Association, Kolkata - Life Member Indian Society of Chemists & Biologists, Lucknow- Life Member Society for Materials Chemistry, Mumbai- Life Member Association of Chemistry Teachers, Mumbai- Life Member Indo German Society, Jaipur - Life Member American Chemical Society - Member Rotarian - Rotary Club Jaipur Marugandha (Club President 2003, 2010)

Some Representative Publications

- 1. Substituent Dependent Anomeric Effects as a Source of Conformational Preference in Pyridinium Methylides; *J. Org. Chem.*, *71*, 1344-1350 (2006).
- 2. Deprotonation of 1,2-Dialkylpyridinium Ions: A DFT Study of Reactivity and Site-selectivity, *J. Phys. Chem. A.*, 111, 8823-8828 (2007).
- 3. Diastereo- and regioselective Diels-Alder reactions of 2-phosphaindolizines; *Tetrahedron*, 64, 6395-6401 (2008).
- 4. Theoretical investigation of an unusual substituent effect on the dienophilicity of >C=P– functionality present in 2-phosphaindolizines; *J. Phys. Org. Chem.*, *22*, 125-129 (2009).
- 5. Diels-Alder reaction of 2-phosphaindolizines catalyzed by organoaluminium reagent: theoretical and experimental results, *Tetrahedron Lett.*, *52*, 1721-1724 (2011).
- 6. Recent advances in the chemistry of diazaphospholes (Phosphorus Heterocycles II) In *Topics Heterocyclic Chem.* 21, 175-206 (2010) DOI- 10.1007/7081_2009_20
- 7. 1,5-Electrocyclization versus 1,5-proton shift in imidazolium allylides and 2-phosphaallylides: a DFT investigation, *J. Phys. Org. Chem.*, *24*, 786-797 (2011)
- 8. σ²P,O-hybrid ligands: Synthesis of the first 4-hydroxy-1,3-benzazaphospholes via ortholithiation of m-amido phenyldiethyl phosphates *Eur. J. Inorg. Chem. 34*, 5958-5968 (2014).
- 9. Molecular Recognition Pattern of Cytotoxic Alkaloid Vinblastine with Multiple Targets; *J. Mol. Graph. Model.* 54, 1-9 (2014) DOI 10.1016/j.jmgm.2014.09.001.
- 10. Computational Predictions for Multi-Target Drug Design; *Methods in Pharmacology and Toxicology* 27-50 Springer Nature (2018) DOI 10.1007/7653_2018_26

R & D Projects Completed

- Negative(Anionic) Hyperconjugation in Phosphonium /Pyridinium Ylidyl Di/Monohalophosphines and Related compounds Experimental and Theoretical Aspect as PI sanctioned by DST, New Delhi (*FTP scheme for Young Scientists*) Oct 2002-Feb 2006.
- Synthetic and theoretical investigations of novel heterocyclic systems incorporating σ^2 , λ^3 -phosphorus stabilized by aromatization/delocalization; as PI sanctioned by DST, New Delhi, Feb 2008-Jan 2011.
- Pericyclic and Pseudopericyclic Mechanism in 1,5-Electrocyclization of Cycloiminium Allylides and 2-Phosphaallylides : A Theoretical Investigation; (As Co-PI, with Prof. R.K. Bansal and Prof. G. Frenking, Germany) DST-DFG Indo-German cooperation project, Aug 2008-July 2010.
- Catalytic Asymmetric Diels–Alder Reaction of Azaphospholes; (As Co-PI with Prof. R.K. Bansal) DST, New Delhi, Sep 2009- Aug 2012.
- Experimental and Theoretical Investigation of 1,5-Electrocyclization of Cycloiminium 2-Phosphaallylides (As Co-PI, with Prof. R.K. Bansal) UGC, New Delhi, May 2009-April 2012.
- Facile synthesis of biodynamic chiral organophosphorus heterocycles(As Co-PI with Dr. V. Kabra) UGC, New Delhi, April 2008-Mar 2011.
- Diels-Alder Reactions of Azaphospholes : Synthetic and Theoretical Aspects; (As Co-PI with Prof. R.K. Bansal). DST, New Delhi, July 2003-Oct 2008.
- New amidophosphates and Amidothiophosphates as Potential Pesticidal Agents: synthesis and Pesticidal Activity; (As Co-PI with Dr. V. Kabra) CSIR, New Delhi, 1999-2002.
- Structural Characterization of Epigenomic Targeting by Small Molecules using Computational and Experimental Approaches (as collaborative Co-PI) ICMR 2018-contd.

Co-curricular, Extra-curricular and Outreach Activities

- Resource Person (Organic Chemistry) for Live Streaming Classes for JEE aspirants from rural and remote areas of Rajasthan under Satellite Communication (SATCOM) Program of Department of Science and Technology, Govt. of Rajasthan, Jaipur (2011-2018).
- Resource Person on "Scientific Writing", "Research Methodology" "Literature Survey and Review Article" & "Targeted Organic Synthesis" in Workshops for M.Sc. & M.Phil. Dissertations and Ph.D. Scholars, at various Universities (2010 contd.).
- Co-coordinator Refresher Courses for Faculty in Chemistry and in Physical Sciences conducted by Academic Staff College/HRDC Univ. of Rajasthan, Jaipur and Resource person in Refresher Courses for Faculty and Faculty Development Programs in various Universities.
- Organizing Secretary of International Conference Series (FCASI-2015, FCASI-2016, FCASI-2017, FCASI-2018) and Convener (E-FCASI-2020) organized jointly by Center of Advanced Study in Chemistry and CRSI-Rajasthan Chapter, University of Rajasthan, Jaipur
- Organized State level "CRSI Chemistry Olympiad' for Senior Secondary students to mark the Celebration of the National Chemistry Week, 2014. Conducted, ACT- Concept Test in Chemistry (Contech 2016) in UMCJ as College Coordinator (2016).
- Judge at various Inter-college/ Interschool Science Competition Events, such as Working Science Model Competitions, Debates, National Children Science Congress; Project Evaluator at KVS National Children Science Congress, Know your Elements during "Celebration of the International Year of Periodic Table - 2019".

- Ph.D. Thesis Evaluator/Examiner in several Universities; Subject Expert in KVPY Selection Committee; Reviewer of Several International Research Journals published by ACS, Wiley, Springer, etc.
- Subject Expert in Selection committees for Lecturers/Assistant Professors/Associate Professors in Colleges and other Universities.
- Coordinator of Computer Assisted Drug Design Module of Design Innovation Center RU, responsible for conducting Short term training Course and mentoring the Design Innovation Fellow in area of CADD. Represented DIC-RU in All India MHRD-DIC Meet cum Exhibition organized by NID at IIT Delhi, 26 Nov., 2019 and 3rd Annual Higher & Technical Education and HR Conclave at Jaipur 16-17 December, 2019.
- NSS Officer, University Maharaja College (2006-2010), also accompanied NSS volunteers in National Integration Camp of Ministry of Youth Affairs & Sports, GOI organized at Jaipur 18-24 June, 2008.
- Contribution in University Level Committees as member of University Students Grievance Committee(2010); University Committee for Ph.D. Students(2010); University Flying Squad Committee(2012-13); University Unfairmeans Standing Committee (2013 & 2014); Facilitator, Committee for UPE Team (2011); UPE Visiting Team Committee (2017); Telephone Directory Printing Committee (2017, 2018, 2020); Committees for MPAT-2014, MPAT-2016-2017, MPAT-2018; various Technical Committees under DST-PURSE & RUSA1.0; Steering committee, DIC-RU

Chief Guest/ Inaugural Speaker/ Keynote Speaker

- 1. Inaugural Keynote Speaker, (*Talk Title "Emerging Areas of Chemical Sciences*"), ACS-National Chemistry Week 2021 event, organized by Vivekanand Global University, Jaipur on 18-19 October 2021.
- 2. Keynote Speaker (*Talk Title "Women in Chemistry Past, Present and Future"*), In International webinar on Research and Innovation: Exploring Gendered Challenges, organized by IISU Jaipur on 09 February 2021 (Zoom Platform) as part of Global Women's Breakfast (GWB), 2021 event of IUPAC with Theme "Empowering Diversity in Science."
- 3. **Inaugural Lecture** on "*Nanotechnology as Greener options for sustainable development*" in *ISTE sponsored Short Term Training Program* for Faculty Members & Research Scholars on "Environmental Impacts of COVID-19 Pandemic: Challenges and Remedies through Science and Engineering" organized by Department of Applied Science, PIET, Jaipur & RTU Kota (Zoom Platform)July 27-31, 2020.
- 4. **Inaugural Lecture** *"Nanotechnology for Sustainable Development"* in **Online Faculty Development Program on Sustainable development with Green Technology**: Precovid, Covid and Postcovid Times conducted by Anurag University Hyderabad11-13 June, 2020.
- 5. **Inaugural address as Chief Guest** at 2nd *International Conference on "The Smart City Convergence 2020"* organized by Poornima Institute of Engineering and Technology, Jaipur, 20-21 March, 2020.
- 6. Inaugural Address as Chief Guest in *National Seminar on "A Spectrum of Opportunities in Nanoscience and Nanotechnology" SONN-II-2020* organized by Poornima University, Jaipur 31 January, 2020
- 7. **Keynote Speaker**, "Chemistry Conference to Celebrate the International Year of Periodic Table (IYPT-2019)", organized by Kanoria PG Kanya Mahavidyalaya in association with ACT, 29-30 November, 2019.
- 8. **Keynote Speaker** in One day Seminar on "Fundamental Concepts in Inorganic and Organic Chemistry" at St Wilfred's PG College 6th September 2019.

Invited Speaker in International Conferences

- 1. Invited Talk in *International Conference on Recent Trends in Chemical Sciences RTCS 2020* of 57th Annual Convention of Chemists, 2020 organized by *Indian Chemical Society*, 26-29th December, 2020. *Title Applying Different Analytical Approaches to Understand Intermolecular Interactions of Therapeutic Agents with Biological Receptors.* (Google meet Platform on 28th Dec.).
- 2. Invited Talk in **26thInternational Conference ISCBC-NIPiCON-2020** on "Integrating Chemical, Biological and Pharmaceutical Sciences for Innovations in Health Care" at Nirma University, Ahemdabad 22-24th January, 2020. *Title "Computational Identification of Antiretroviral Drug Candidates through Recognition of HIV(type 1) conserved Glycoprotein Sequence"*.
- 3. Invited Lecture in *International Conference on "Recent Developments in Chemical Research"* at IIS University, Jaipur, 1-2 February, 2019. Title *"Versatile Dienophilicity of 2-Phosphaindolizines towards Electron Rich Vs Electron Deficient Dienes"*
- 4. Award Lecture in 25th International Conference (ISCBC-2019) on Trends in Chemical and Biological Sciences: Impact on Health and Environment, Indian Society of Chemists and Biologists, Lucknow, 12-14 January, 2019. Title -"Dienophilicity of >C=P- Functionality of 2-Phosphaindolizines towards Electron Rich Vs Electron Deficient Dienes."
- Invited Lecture in 22nd International Conference on Phosphorus Chemistry (ICPC) organized by Hungarian Chemical Society and Budapest University of Technology and Economics at Budapest, HungaryJuly 2018. TITLE – "Investigation of substituent dependent cheletropic Vs [4+2] cycloaddition on >C=P- functionality".
- 6. Invited Lecture at 10th Biyani International Conference (BICON-15) on Advanced Material Science and Engineering, under India-Japan Bilateral Cooperation, organized by Biyani Girls College, Jaipur (Sep. 22, 2015). Title "Facile Syntheses of azaphospha heterocycles from functionalized cycloiminium ylides and related imines.
- 7. Invited Speaker, at 8th Mid-Year International CRSI-NSC, organized by CSIR North East Institute of Science and Technology (NIEST), Jorhat 10-12, July, 2014. Title "Functionalized cycloiminium ylides and related imines versatile precursors for facile syntheses of phosphorus heterocycles".
- 8. Invited Speaker, *German Chemical Society Colloquium* at Institute of Biochemistry, EMA University, Greifswald, Germany (28-9-2009) Title Advances in the Chemistry of Anellated Azaphospholes Supplemented by Theoretical Calculations."

Chaired Session in National/International Conferences & Symposiums.

- 1. Chaired **Award Paper Session** *in International Conference on Recent Trends in Chemical Sciences RTCS-2021* during 58th Annual Convention of Chemists, 21-24th December, 2021 Platform: Google meet.
- Chaired session in 27th CRSI-National Symposium in Chemistry organized jointly by IISER Kolkata and ACS at Kolkata, 26-29 September, 2021.
- 3. Chaired session in RTU(ATU) TEQIP-III sponsored **Online International Conference** on "Post Covid Challenges on Life and Livelihood" ICPCC), organized by Rajasthan Technical University & Poornima Institute of Engineering and Technology, Jaipur, 5-6 March, 2021.
- 4. Chaired Award Paper Session in International Conference on Recent Trends in Chemical Sciences RTCS-2020 during 57th Annual Convention of Chemists, 26-29th December, 2020 Platform: Google meet.
- 5. Chaired session in *Faculty Training Program* on "Advancement in Nanomaterials, Devices and Fuzzy Logic" at Pratap Institute of Technology & Science, Sikar (2 Oct, 2019).
- Chaired scientific session in "11th Meeting of Chemical Frontiers Goa (CFG-2019)" organized by JNCAR Bengaluru and IIT Bombay on 85th Birthday of Prof. CNR Rao (22-25 July, 2019).
- 7. Chaired Session in "*International Conference on Smart Innovations for Society (ICSIS-2019)*" organized by Poornima Institute of Engineering and Technology, Jaipur, 6-7 April, 2019.
- 8. Chaired session in *National Conference* on "Energy, Material and Sustainable Society" (EMSS-2018)" at organized by Kanoria PG Kanya Mahavidyalaya, Jaipur, 24-25 January, 2018.
- 9. Chaired session in **24**th*International Conference (ISCBC-2018) "Frontier Research in Chemistry Biology Interface"* of Indian Society of Chemists and Biologists, at Manipal University, Jaipur, 11-13 January, 2018.
- 10. Chaired technical session in *National Workshop* on "Instrumentation Techniques for Research in Chemical Sciences" organized by Kanoria PG Kanya Mahavidyalaya, Jaipur, 22-23 December, 2017.
- 11. Chaired Session in *National Conference* on "New Vistas in Chemical Research", organized by The IIS University, Jaipur 18-19 Jan. 2017.
- 12. Chaired oral presentation session in *National Conference* on *Emerging Areas in Chemical Education and Research* and ACT's National Convention of Chemistry Teachers (NCCT-2014), at The IIS University, Jaipur, 16-18 October, 2014.
- 13. Chaired Physical Sciences Poster Session at *National Seminar* on *Innovations in Science and Technology for Inclusive Development,* Dr B Lal Institute of Biotechnology Jaipur jointly with ISCA Jaipur Chapter 16-17 January, 2014.
- 14. Chaired Scientific session in *International Conference* on "New Emerging Trends in Chemistry" organized by The IIS University, Jaipur, (3-4 March 2013).
- 15. Chaired Session in *International Workshop on "Chemistry for a Sustainable Future*" organized jointly by Dept. of Chemistry, University of Rajasthan, MNIT and Green Chemistry Network Center, Delhi Univ. at Jaipur (10-12 Dec., 2012).
- 16. Chaired session in *National Seminar* on "Chemistry in Our Lives" on occasion of *International Year of Chemistry* (IYC-2011), Center of Advanced Study, Dept. of Chemistry, Univ. of Rajasthan (12 Dec. 2011).
- 17. Chaired session in *National Symposium on Organic Synthesis*, organized by International College for Girls, The IIS University, (18-19 Feb., 2011).
- 18. Chaired session in *National Symposium on New Frontiers in Chemical Sciences*, CAS, Dept. of Chemistry, University of Rajasthan, Jaipur (25 Feb., 2010).
- 19. Chaired Session in *2nd J-NOST Symposium* of National Organic Symposium Trust, organized by International College for Girls, Jaipur (Oct, 2006).
- 20. Chaired Session National Symposium on New Vistas in Organic Synthesis, ICG, Jaipur (20 Nov. 2005).

Invited Talks in National Conferences/Seminars/Workshops

- Invited Expert Lecture on "Applying DFT Calculations for Solutions to Laboratory Observations" in TEQIP-III Workshop on "Density Functional Theory and its Applications using Gaussian Software" organized by NIT-UK at Satellite Campus, MNIT Jaipur, 27th Feb, 2020.
- 2. Invited Talk in *National Workshop* on "Stereochemistry and Spectroscopy Applications" (SSA-2019), Kanoria PG Mahila Mahavidyalaya, April 22-24, 2019. Title '*Introduction to Nuclear Magnetic Resonance (NMR) Spectroscopy*'
- 3. Invited Talk in **National Workshop** on *"Role of Instrumentation Techniques in Chemical Sciences"* (RITCS-2019) at St. Wilfred PG College, Jaipur 25th January 2019.
- 4. Invited Lecture in 9thNational Conference of Indian Science Congress Association-Haridwar Chapter, GBPU, Pantnagar, 13-14 October, 2018. Title -Novel Routes to Syntheses of Phosphorus Heterocycles through Functionalized cycloiminium ylides and imines.
- Resource Person, National Hindi Science Symposium on "Need for Environmental Protection in Changing Scenario" organized by Department of Chemistry, University of Rajasthan and Vigyan Parishad Prayag, Jodhpur Chapter at Jaipur, 19 March, 2016.
- 6. Invited Speaker, at **20th CRSI-National Symposium in Chemistry**, organized by Department of Chemistry, Gauhati University, Guwahati, 3-5, February, 2014
- 7. Invited Lecture in **National Seminar on Chemistry for Economic Growth and Human Comforts**, Deptt. of Chemistry, University of Rajasthan, Jaipur (31th August, 2013).
- 8. Invited Lecture in **National Symposium on Recent Advances in Chemical Sciences (NSRACS-2011)**, organized by Department of Pure and Applied Chemistry, University of Kota (7-8 January 2011).
- 9. Invited Speaker in **National Conference on Green and Sustainable Chemistry**, organized by Chemistry Group, BITS Pilani (19-21 Feb. 2010).

Resource person in Refresher Course/Faculty Development/Training Program

- 1. Resource Person in **Online Faculty Development Program** on "Smart Applications of Nano Sciences for Innovative Engineering Aspects" Poornima Institute of Engineering & Technology, Jaipur (Zoom Platform)13-14 April, 2021; *Title*"Applications of Nanotechnology for Smart Innovations"
- Resource Person in Online Refresher Course in Chemistry on Recent Trends in Chemistry Education and Research conducted by HRDC, Sant Baba Gadage Amravati University, Amravati, 23 Nov – 5 Dec. 2020.*Title "Scientific Literature : Some Important Things to Know"*
- 3. Inaugural Lecture in **Short Term Training Program** on "Environmental Impacts of COVID-19 Pandemic: Challenges and Remedies through Science and Engineering" organized by Department of Applied Science, PIET, Jaipur & Rajasthan Technical University, Kota (Zoom Platform)July 27-31, 2020. *Title "Nanotechnology as Greener options for sustainable development"*
- 4. Inaugural Lecture in Online **Faculty Development Program** on "Sustainable Development with Green Technology: Precovid, Covid and Postcovid Times" conducted by Anurag University, Hyderabad 11-13 June, 2020. *Title "Nanotechnology for Sustainable Development*"
- 5. Resource person for **Online Workshop on "Scientific Writing**" conducted by Amity Institute of Forensic Science, Amity University Noida (MSTeam Platform) 29-31st May, 2020. (*Part I Scientific Literature and its Importance; Part II Classification and Various Types of Scientific Documents; Part III– Ethical Consideration & Writing a Research Article*)
- 6. Guest Speaker in **AICTE-BTU sponsored Training Program** on "Advancement in Nanomaterials, Devices & Fuzzy Logic" at Pratap Institute of Technology & Science, Sikar Oct, 2019. *Title "Nanomaterials Publications Ethics & Safety Measures"*
- 7. Resource Person in **Refresher Course in Pharmaceutical Chemistry** conducted by HRDC, Univ. of Rajasthan, Jaipur 19-9-2017. *Title "Asymmetric Synthesis an Important Tool in Pharmaceutical Chemistry"*
- 8. Resource Person and Co-coordinator in "**Refresher Course on Newer Frontiers of Chemical Sciences** for a Sustainable Future", UGC-Academic Staff College, Univ. of Rajasthan Jaipur. Feb 2014. *Title "Reviewing Literature & Scientific Writing"*
- 9. Resource Person on "Scientific Writing-Some Important Considerations" in "*Refresher Course in Physical Sciences*", UGC-Academic Staff College, Univ. of Rajasthan Jaipur Jan. 2013.
- 10. Resource Person and Co-coordinator in "*Refresher Course on Ecofriendly Benign Chemistry*", UGC-Academic Staff College, Univ. of Rajasthan, Jaipur Dec. 2011. *Title "Research Methodology & Scientific Publication"*
- 11. Resource Person in **Refresher Course on "The Role of Chemistry in Remedying the Environment**", UGC-ASC, Univ. of Rajasthan Jaipur Aug 2010.*Title "Targeted Organic Synthesis*"
- 12. Resource Person for Laboratory *Training on Computational Chemistry Software* in **Refresher Course in Chemistry**", UGC-ASC, Univ. of Rajasthan Jaipur 1998.

Paper Presented/Participation in International Conferences

- 1. International Webinar on Scientific Writing, organized jointly by ACT and IIS University, Jaipur, 27-28 Nov, 2020.
- 2. American Chemical Society's 2nd ACS-CRSI Meeting at organized at Indian Institute of Technology, Kanpur 18 July, 2019
- 3. CRSI-American Chemical Society Symposium at IICT Hyderabad, 13 July 2017.
- 4. XVIII International NOST-Organic Chemistry Conference, IISER Bhopal, August 24-26, 2017.
- 5. International Conference on Drug Design (ICDD-2017) organized by Schrodinger at JNU, Delhi, 7-9 April, 2017.
- 6. *XVII International NOST-Organic Chemistry Conference* organized by National Organic Symposium Trust, at Jaipur, October 27-30, 2015.
- 7. 9th India Japan Bilateral Conference on Advanced Material Science and Engineering, International Conference BICON-2014, at Biyani Girls College, Jaipur (13 October 2014).
- 8. *"International Workshop on Chemistry for a Sustainable Future"* Dept. of Chemistry, University of Rajasthan, Jaipur (Dec. 2012).
- 9. **12**th International NOST Organic Chemistry Conference organized by National Organic Symposium Trust at Goa (7-10 July, 2007).
- 10. International Conference and Expo on Botanical Products, University of Rajasthan, Jaipur (March, 2006).
- 11. *2nd International Conference on Heterocyclic Chemistry*, University of Rajasthan, Jaipur (16-19 Dec, 2006).
- 12. *International Conference* on Sustainable Development and Resource Utilization: Current Trends and Perspectives, University of Rajasthan, Jaipur (23-25Sept 2005).
- 13. *International Symposium* on Interaction of Chemistry Training with Research and Industry, University of Rajasthan, Jaipur (Jan, 2003).
- 14. *International Symposium* on the Chemistry and Applications of Alkoxy, Aryloxy and Allied Derivatives of Elements, University of Rajasthan, Jaipur (Jan, 2002).
- 15. *International Conference on Heterocyclic Chemistry*, University of Rajasthan, Jaipur (15-18 Dec, 2001).
- 16. 8th International NOST Symposium, Jaipur, (March, 2000)
- 17. *International Symposium* on Metallo-Organic Chemistry, SAP, Department of Chemistry, University of Rajasthan, Jaipur (March, 1998)