



# Miranda House

## UNIVERSITY OF DELHI



<b>Name:</b>	<b>Dr. Kalawati Saini</b>
<b>Department:</b>	<b>Chemistry</b>
<b>Current Designation:</b>	<b>Professor</b>
<b>Email id:</b>	<a href="mailto:kalawati.saini@mirandahouse.ac.in">kalawati.saini@mirandahouse.ac.in</a>
<b>Research Degree(s):</b>	<b>Ph.D.</b>
<b>Orcid ID:</b>	<b>0000-0002-0317-1935</b>
<b>Total Teaching Experience:</b>	<b>16 Years</b>
<b>Total Research Experience:</b>	<b>16 + Years (Excluding Ph.D. Degree)</b>
<b>Teaching at Miranda House:</b>	<b>Since 12<sup>th</sup> January 2009</b>
<b>Ph.D. thesis title:</b>	<b>Voltammetry Study of Medicinally Important compounds and Their Metal Complexes.</b>
<b>Guide's Name:</b>	<b>Dr (Mrs) Rajayashree Pandey, Associate Professor, Department of Chemistry, University of Rajasthan, Jaipur</b>

### Research Areas of Interest:

Electrochemical and hydrothermal Synthesis of new metal-organic framework and their applications, Powder and Single Crystal X-Ray Diffraction techniques, Electrochemical and green synthesis of nanoparticles, Design and synthesis of advanced functional material for renewable energy, Electrocatalysis, Photocatalysis, CO<sub>2</sub> electrochemical reduction to hydrocarbon, Fuel cell, Electroanalysis (Cyclic Voltammetry, DPP, DCP and other Electrochemical Techniques), design and synthesis of electrochemical sensors and anticancer study on lung cell lines.

### Academic Qualification (Undergraduate Onwards):

1995- 1998	B.Sc. Govt. Maharani Sudarshana (M.S.) College for Women, Bikaner, Rajasthan, M.D.S. University, Ajmer (*Now it is College of Maharaja Ganga Singh University, Bikaner (Rajasthan).
1998-2000	M.Sc. (Physical Chemistry), Department of Chemistry, University of Rajasthan, Jaipur.
2001-2005	Ph.D. Chemistry (Electrochemistry), Department of Chemistry, University of Rajasthan, Jaipur.



# Miranda House

## UNIVERSITY OF DELHI

**Work experience (in chronological order):**

S.No.	Position held	Name of the Institute	From	to
1	Associate Professor	Miranda House, University of Delhi	13.01.2017	Till date
2	Assistant Professor	Miranda House, University of Delhi	13.01.2009	12.01.2017
4	Research Associate	Material Chemistry Lab , Department of Chemistry, Indian Institute of Technology, Delhi, Hauz Khas, New Delhi- 110016	5.04.2007	11.01.2009
5	Lecturer	Seth Motilal P.G. College, Jhunjunu, U.O.R	4.08.2006	15.03.2007
6	Research Associate	High Pressure Physics Lab, Department of Physics, University of Rajasthan, Jaipur	20.10.2005	3.08.2006
7	Lecturer	Kanoria P.G. Mahila Mahavidyalaya, Jaipur, U.O.R.,	26.07.2005	9.11.2005
8	Lecturer	Kanoria P.G. Mahila Mahavidyalaya, Jaipur, U.O.R., Jaipur	28.07.2004	28.02.2005



# Miranda House UNIVERSITY OF DELHI

## Professional Recognition/ Award/ Prize/ Certificate/International travelling grant/ Fellowship:

S. No.	Name of Award/Honour *	Area/Subject	Name of Awarding Body	Level (International National)	Date
1	International Travelling grant for presenting Online Invited talk, 6-7 December, 2021, Paris, (France).	Chemistry	UGC & Conference organizer, (Environmental Science & Green Energy-2021), Paris (France)	International	2021
2	International Travel grant from DST for presenting invited talk at Stockholm, Sweden, 22 -24 August, 2017., <b>Dated: 01.02.2018(Sanctioned: Ticket + Visa=Rs.57127/)</b>	Chemistry	DST, Govt. of India.	International	01.02.2018
3	IAAM-2017, Scientist Award	Chemistry	IAAM, USA	International	01.03.2017
4	Selected for Research Display at the Convocation Ceremony, Certificate of Appreciation	Project Code: <b>MH-310</b> , Miranda House	University of Delhi	At University Level	19.11.2016
5	International Travel grant from UGC for presenting invited talk at Miami, USA, 4 <sup>th</sup> -9 <sup>th</sup> December, 2016. <b>Ref File No. 6-259/2016(TG), Dated: 11.11.2016</b>	Chemistry	UGC, Govt. of India. Note* Aailed from UGC	International	11.11.2016
6	International Travel grant from DBT for presenting invited talk at Miami, USA, 4 <sup>th</sup> -9 <sup>th</sup> December, 2016. <b>Ref File No. T45,DBT/CTEP/02/201601514(Sanctioned: Ticket-Rs.86241/)</b>	Chemistry	DBT, Govt. of India. Note* Aailed from UGC	International	Nov.,2016
7	International Travel grant from DST for presenting invited talk at Miami, USA, 4 <sup>th</sup> -9 <sup>th</sup> December, 2016., <b>Dated: 07.11.2016(Sanctioned: Ticket + Visa=Rs.97241/)</b>	Chemistry	DST, Govt. of India. Note* Aailed from UGC	International	07.11.2016
8	IAAM-2017, Scientist Award	Chemistry	IAAM, USA	International	01.03.2017
9	Best Poster award in National Conference on Advanced Functional Materials & Their Applications ( <b>AFMA-2015</b> ), <b>11-12Dec.2015</b>	Chemistry	Department of Physics in association with Department	National	11.12.2015



# Miranda House

## UNIVERSITY OF DELHI

			of Mechanical Engineering, Government Women Engineering College, Ajmer		
10	Best Poster award in (National Conference on Green Chemistry and sustainable Technologies for Society-2016), <b>11-12Jan.,2016</b>	Chemistry	Department of Chemistry & Electronics Engineering, Government Women Engineering College, Ajmer	National	12.01.2016
11	Summer Faculty Research Fellow Programme-2015	Chemistry	IIT, Delhi	National	15.05.2015
12	Summer Faculty Research Fellow Programme-2012	Chemical Engineering	IIT, Delhi	National	11.06.2012
13	International travel grant for presenting the research paper” International conference, 60 th Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy, March 8-13,2009, McCormic Place, Chicago, Illinois, USA.( <b>Sanctioned:Ticket= Rs. 60,000/)*Not availed</b>	Department of Chemistry, IIT, Delhi	DBT, Govt. of India	International	2009
14	Pool Scientist Scheme, Senior Research Associate Fellowship (Post Doctoral Fellow), <b>Ref.No. (B-11315).</b>	Department of Chemistry, IIT, Delhi	CSIR, New Delhi	National	22.12.2008
15	Research Associate Fellowship (Post Doctoral Fellow),Ref.No. <b>09/086(0830)/2007-EMR-I</b>	Department of Chemistry, IIT, Delhi	CSIR, New Delhi	National	05.04.2007-11.01.2009
16	Research Associate Fellowship (Post Doctoral Fellow), Ref No. <b>CSIR/UC/Phy/05/1646</b>	Department of Physics,U. O.R. Jaipur	CSIR, New Delhi	National	20.10.2005-03.08.2006
17	Research Fellowship (Special Assistance Programme),UGC	Department of Chemistry, U.O.R. Jaipur	UGC, New Delhi	National	2001-2004



# Miranda House

## UNIVERSITY OF DELHI

### List of Publications:

S.NO.	Author Name	Title	Name of Journal	Volume	Page	Year
1	Rani, N. Rawat , K. Anju Shrivastava , A., Ekta , Sapna Yadav ,S., Kalpna Gupta, K., <b>Saini, K.*</b>	In Vitro study of green synthesized ZnO nanoparticles on human lung cancer cell lines.	<b>Materials Today Proceedings: Elsevier Journal</b> , Indexed by SCOPUS, (ISSN:2214-7853), (Cite Score= 1.24) <a href="https://doi.org/10.1016/j.matpr.2021.07.203">https://doi.org/10.1016/j.matpr.2021.07.203</a>	49(5)	1436-1442	2022
2	Yadav, S., Rani, N., <b>Saini, K.*</b>	Green synthesis of ZnO and CuO NPs using Ficus benghalensis Leaf Extract and their Comparative Study for Electrode Materials for High Performance Supercapacitor Application.	<b>Materials Today Proceedings: Elsevier Journal</b> , Indexed by SCOPUS, (ISSN:2214-7853), ( Cite Score= 1.24), <a href="https://doi.org/10.1016/j.matpr.2021.08.323">https://doi.org/10.1016/j.matpr.2021.08.323</a>	49 (5)	2124-2130	2022
3	Rani, N., Rawat,K. Saini, M., Shrivastava, A., Ganeshlenin Kandasamy, G., <b>Saini, K.*</b> , Maity D.	Rod-Shaped ZnO Nanoparticles: Synthesis, Comparison and In Vitro Evaluation of Their Apoptotic Activity in Lung Cancer Cells.	<b>Chemical Papers, Springer Nature Journal</b> , (Impact Factor 2.146). ISSN: 0360-3199 <a href="https://doi.org/10.1007/s11696-021-01942-y">https://doi.org/10.1007/s11696-021-01942-y</a>	76	1225–1238	2022
4	Rani, N., <b>Saini K.*</b>	Biogenic Metal and Metal Oxides Nanoparticles as Anticancer Agent: A Review.	IOP Science( <i>IOP Conf. Ser</i> ): <b>Journal of Material Science and Engineering</b> , Indexed by SCOPUS ,ISSN: 1757-899x	1225	012043	2022
5	Saini, M., Mushtaq, A., Yadav, S., Rawat, S., K Gupta, K ., <b>Saini, K.*</b>	Green Synthesis of Rod shaped ZnO using Origanum majorana Leaf Extract and their Study for Antibacterial Applications.	IOP Science( <i>IOP Conf. Ser</i> ): <b>Journal of Material Science and Engineering</b> ., Indexed by SCOPUS, ISSN: 1757-899x	1225	012048	2022



# Miranda House UNIVERSITY OF DELHI

6	Yadav S., Rani, N. <b>Saini K.*</b>	A Review on Transition metal oxides based Nanocomposites, their Synthesis techniques, Different Morphologies and potential Applications.	IOP Science ( <i>IOP Conf. Ser</i> ): <b>Journal of Material Science and Engineering</b> , Indexed by SCOPUS , ISSN: 1757-899x	1225	012004	2022
7	Saini, M. <b>Saini K*</b> , Rani, N., Mushtaq, A., Yadav,S., and Rawat, S.	Antibacterial study of nanosized zinc oxide (F1) against various gram-positive and gram-negative bacteria.	Materials Today Proceedings : Elsevier Journal, <b>Cite Score= 1.24</b> <b>DOI:</b> <a href="https://doi.org/10.1016/j.matpr.2022.07.208">10.1016/j.matpr.2022.07.208</a> , ISSN: 22147853	xx	xx	2022
8	Yadav,S., Yadav, J., Kumar, M., <b>Saini K.*</b>	Synthesis and characterization of nickel oxide/cobalt oxide nanocomposites for effective degradation of methylene blue and their comparative electrochemical study as electrode material for supercapacitor application	International Journal of Hydrogen Energy: Elsevier Journal, ( <b>In Press</b> ), <b>HE-21-05480_R1</b> ( <b>Impact Factor =7.139</b> ) <a href="https://doi.org/10.1016/j.ijhydene.2022.02.011">https://doi.org/10.1016/j.ijhydene.2022.02.011</a> <a href="https://authors.elsevier.com/tracking/article/details.do?aid=34660&amp;jid=HE&amp;surname=saini">https://authors.elsevier.com/tracking/article/details.do?aid=34660&amp;jid=HE&amp;surname=saini</a>	xx	xx	2022
9	Rani, N., Goswami, N.,Maity, D., Sachin Ramesh Patil,S.R., Bimlesh Lochab, B., <b>Saini, K.*</b>	Biosynthesis of hydrophilic Zinc oxide nanoparticles using <i>Plumeria Obtusa</i> and <i>Tabernaemontana divaricate</i> flower extract for antidiabetic treatment.	<b>Springer Journal Chemical Papers.</b> (2022) ( <b>Impact Factor= 2.146</b> ), ISSN: 2585-7290, <a href="https://doi.org/10.1007/s11696-022-02239-4">https://doi.org/10.1007/s11696-022-02239-4</a>	76	5051–5062	2022
10	Yadav, S., Shakya, K., Gupta, A., Singh,D., Chandran, R. A., Aanappalli, V. A., Goyal,K. Rani,N., <b>Saini K*</b> .	A Review on Degradation of Chemical Wastes by using Metal Oxide Semiconductors.	<b>Environmental Science and Pollution Research: Springer Journal</b> ( <b>Impact Factor = 5.190</b> ) 2022 ISSN: 1614-7499, <a href="https://doi.org/10.1007/s11356-022-20818-6">10.1007/s11356-022-20818-6</a>	xx	xx	2022



# Miranda House UNIVERSITY OF DELHI

11	Yadav S., Rani,N., Asifa Mushtaq, A. Saini, M., Rawat, S., and Saini, K*.	<b>Biosynthesized zinc oxide nanoparticles using seed and bark extract of <i>Azadirachta indica</i> for antibacterial, photocatalytic and supercapacitor applications</b>	Elsevier Journal: Material Science and Engineering B (accepted) (Impact Factor= 3.407), ISSN:0921-5107, <a href="https://doi.org/10.1016/j.mseb.2022.115789">https://doi.org/10.1016/j.mseb.2022.115789</a>	282	115789	2022
12	<b>Nutan Rani, N., Rawat,K., Saini, M., Yadav, S., Shrivastava,A ., Saini, K*., Maity D.,</b>	Azadirachta indica leaf extract mediated biosynthesized rod-shaped zinc oxide nanoparticles for in vitro lung cancer treatment	Elsevier Journal: Material Science and Engineering B, DOI: <a href="https://doi.org/10.1016/j.mseb.2022.115851">10.1016/j.mseb.2022.115851</a>	284(10)	115851	2022
13	<b>Saini, K*.,</b> Rani, N., Mushtaq, A., Saini, M., Rawat, S.	Green synthesis of ZnO nanoparticles using extract of <i>Azadirachta indica</i> and their study for antibacterial applications.	<b>Journal of Nano Research(J NANO R) (accepted), Scientific Net(Impact Factor= 3.2), ISSN 1572-896X</b>			2022
14	Rani, N., Saini, M., Yadav, S., Kalpna Gupta, K., <b>Saini, K*.,</b> Khanuja , M.,	High performance Supercapacitor based on rod shaped ZnO Nanostructure electrode.	<b>Journal of American Institute of Physics (AIP) proceedings (2020), Scopus Index; <a href="https://doi.org/10.1063/5.0026084">https://doi.org/10.1063/5.0026084</a> ,ISSN No. 1551-7616,(Impact Factor = 0.40)</b>	2276	020042	2020
15	Kandasamy, G., Sudame, A., Luthra, T., <b>Saini, K.,</b> Maity D*.	Functionalized Hydrophilic Superparamagnetic Iron Oxide Nanoparticles for Magnetic Fluid Hyperthermia Application in Liver Cancer Treatment.	<b>ACS Omega, Journal of American Chemical Society, Indexed by SCOPUS, (Impact Factor= 2.87) ISSN: 2470-1343 <a href="https://doi.org/10.1021/acsomega.8b00207">https://doi.org/10.1021/acsomega.8b00207</a></b>	3	3991–4005	2018
16	<b>Saini, K*.,</b> Bhatia, S.S., Rani, N.	Rod-Shaped copper ( Cu, Cu <sub>2</sub> O) Nano Catalyst for the facile Oxidation of Methanol.	<b>Advanced Material Let. ISSN: 0976-3961, <a href="https://doi.org/10.5185/amlett.2018.1714">10.5185/amlett.2018.1714</a></b>	9(1)	36-41	2018
17	<b>Saini, K*.,</b> Jojeph, F. and Bhatia; S. S	Electrochemical Synthesis and crystal structure of metal organic frameworks of Copper [II] complex derived from	<b>Journal of Advanced Science, Engineering and Medicine, (American Scientific</b>	10	963–974	2018



# Miranda House UNIVERSITY OF DELHI

		malonic acid and picolinic acid	Publisher) ( <b>Impact Factor = 0.987</b> ) <a href="https://doi.org/10.1166/ase.2018.2197">https://doi.org/10.1166/ase.2018.2197</a>			
18	Gupta, K*., Saini, K.	Education for Sustainability Principles: How to Develop Awareness and Energy Management in Society.	IAETSD - JOURNAL FOR ADVANCED RESEARCH IN APPLIED SCIENCES, <a href="https://www.researchgate.net/publication/349590279_Education_for_Sustainability_Principles_How_to_Develop_Awareness_and_Energy_Management_in_Society">https://www.researchgate.net/publication/349590279_Education_for_Sustainability_Principles_How_to_Develop_Awareness_and_Energy_Management_in_Society</a> , ISSN NO: 2394-8442	5(2)	847-852.	2018
19	Saini, K., Devnani, H., Mohsin Bhat, M., Ingole P.P*.	Anisotropic Plasmonic Copper/Copper Oxide Nanostructures by DC Electrophoretic Dissolution of Copper in Water for Plasmonic Sensing of Glucose.	<b>J. Electrochem. Soc.</b> Indexed by SCOPUS, Web of Science, ( <b>Impact Factor = 4.316</b> ), ISSN: 0013-4651 <a href="http://dx.doi.org/10.1149/2.1391713jes">http://dx.doi.org/10.1149/2.1391713jes</a>	164(13)	B674- B680	2017
20	Saini, K*., Pandey, R.S.	Concentration-Dependent Electrochemical Synthesis of Quantum Dot and Nanoparticles of Copper and Shape-Dependent Degradation of Methyl Orange.	<b>Advanced Material Let.</b> ISSN: 0976-3961, <a href="https://doi.org/10.5185/amlett.2017.1663">10.5185/amlett.2017.1663</a>	8(11)	1080-1088	2017
21	Saini, K*., Joje F., Arunachalam R., Bhatia, S.S	Electrochemical Synthesis of A Oxalate- Linked Copper (II) Metal Organic Frameworks: X-ray Crystallographic structure and its Magnetic properties.	<b>ELSEVIER Journal: Materials Today proceedings</b> , (ISSN:2214-7853), (Impact Factor = 1.24) <a href="https://doi.org/10.1016/j.matpr.2017.06.235">10.1016/j.matpr.2017.06.235</a>	4(9)	9616-9621	2017
22	Saini, K*.	A Malonate-Linked Copper(II) Metal Organic Frameworks: X-ray Crystallographic structure.	<b>J. Electrochem. Soc.</b> ISSN 0013-466X, <a href="https://scholar.google.c">https://scholar.google.c</a>	65(3-4)	173-185	2016





# Miranda House

## UNIVERSITY OF DELHI

			<a href="http://om/citations?view_op=view_citation&amp;hl=en&amp;user=wpfIX6YAAAAJ&amp;citation_for_view=wpfIX6YAAAAJ:roLk4NBRz8UC">om/citations?view_op=view_citation&amp;hl=en&amp;user=wpfIX6YAAAAJ&amp;citation_for_view=wpfIX6YAAAAJ:roLk4NBRz8UC</a>			
23	Saini, K*., Swarup, R.	Electrochemical synthesis of Organic Light Emitting Diode(OLED) and characterizations by X-ray Diffraction and supportive techniques.	J. Integr. Sci. Technol ISSN 2321 – 4635, (Impact Factor= 2.53) <a href="http://www.pubs.iscience.in/journal/index.php/jist/article/view/397">http://www.pubs.iscience.in/journal/index.php/jist/article/view/397</a>	2016, 4(2),	107-110 110	2016
24	Saini, K.*,Sonkar, S. M., Balendra, Ghanghas G., Gulati A., Sangeeta and Aayushi	Detection of Heavy Metals (Cr, Co, Ni, Cu) Through Atomic Absorption Spectroscopy From Water Samples Of The River Yamuna at Different Locations in The NCT Of Delhi, India.	IJSRD, ISSN 23210613. (Impact Factor= 4.39)	029	120- 123	2015
25	Saini, K.* and Sonkar, S. M.,	Determination of water quality parameters of the river Yamuna at different locations of Delhi by using Vernier Sensors.	IJESIT, ISSN 23195967. (Impact Factor = 1.913 ISRA)	2(4)	335- 343	2015
26	Saini, K.*, Gupta, H. P., Pandey, R. S.	Study of acid catalyzed reactions of proton pump inhibitors at D.M.E.	Portugaliae Electrochimica Acta ISSN 1647-1571, (Impact Factor = 1.85) <a href="http://www.peacta.org/articles_upload/PEA_26_5_433_448.pdf">http://www.peacta.org/articles_upload/PEA_26_5_433_448.pdf</a>	26(5)	433- 448	2008
27	Saini, K., Gupta,H. P., Gupta, Pandey, R. S*.	Direct current polarographic study of complexes of Pb(II) with penicillin procaine salt at d.m.e. in non aqueous medium.	PROC. NAT.ACAD.SCI.INDI A, ,Physical Section A ,ISSN 0369-8203, (Impact Factor = 1.544)	76(A)	Part I/II	2006
28	Saini, K.,Gupta,H.P., Pandey,R.S*.	Electrochemical study of complexes of Cd <sup>II</sup> with antibiotic drug at d.m.e. in 20% methanol-water and ethanol-water Mixtures.	J. Indian Chemical Society: Elsevier Journal, Impact Factor= 0.233	83	495- 496	2006



# Miranda House UNIVERSITY OF DELHI

29	Saini, K., Gupta, H. P., Gupta, Pandey, R. S*.	Study of complexes of Cu(II) with antibiotic drug in non-aqueous medium	J. Electrochemical Society, ISSN:0013-466X	54(1)	24-28	2005
30	Saini, K., Gupta, H. P., Gupta, Pandey, R. S*.	Electrochemical study of complexes of Cu (II) with antibiotic drug at d.m.e. in non aqueous medium.	Bulletin of Electrochemistry ,ISSN 0256-1654, Impact Factor = 0.24(Scopus) RG 4.0*	20(11)	487-491	2004
31	Saini, K. and Pandey, R. S*.	Polarographic study of complexes of Pb(II) with antibiotic drug at d.m.e.	Transaction of the SAEST, ISSN: 0036-0678, SJR(2019)=0.13,IF =0.33(2015-2016 )	39	89-90	2004
32	Saini, K. Gupta, H.P., and Pandey, R. S*.	Electrochemical study of complexes of Cu (II) with antibiotic drug at d.m.e.	J. Electrochemical Society, ISSN: 0013-466X	53(1)	18-22	2004
33	Saini, K. and Pandey, R. S*.	Direct current polarographic study of complex of Cu(II) with antibiotic drug at d.m.e. J	J. Electrochemical Society, ISSN: 0013-466X	52(2)	56-58	2003

Note: \* For corresponding author.

### Books/Reports/Chapters/General articles etc.

S.No.	Title	Author's	Name Publisher	Year of Publication
1.	Electrochemical Synthesis of multidimensional Nanoparticles and their photocatalytic applications.	Kalawati Saini*, Smriti Sharma Bhatia, Nidhi Gupta	Published as a chapter 5, (442821_1_En,(5) in a book published by Springer Nature (ISBN: 978-981-10-8389-1). <a href="https://doi.org/10.1007/978-981-10-8390-7_5">10.1007/978-981-10-8390-7_5</a>	2018



# Miranda House UNIVERSITY OF DELHI

2.	Trisodium 2-Hydroxypropane-1,2,3-Tricarboxylate Encapsulated Nanocontainer-Based Template-Free Electrochemical Synthesis of Multidimensional Copper/Copper Oxide Nanoparticles . U. K. Mudali et al. (eds.), Recent Trends in Electrochemical Science and Technology, Springer Proceedings in Materials book series (SPM,volume 15)	Mona Saini, Nutan Rani, Asifa Mushtaq, Rini Singh, Seema Rawat, Manoj Kumar and <b>Kalawati Saini*</b>	Published by Springer Nature, 2022, Series ISSN2662-3161, <a href="https://www.springer.com/gp/book/9789811675539#aboutBook">https://www.springer.com/gp/book/9789811675539#aboutBook</a>	2022
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## Full Paper in Conference Proceeding:

1. **Saini K\***, Nutan Rani,N., Ekta, Mahajan D., and Deeksha Satyabola, D. **2019**.“ Facile Synthesis of Multi-dimensional ZnO/ZnO<sub>2</sub> Nano-structures by using Azadirachta indica and their photocatalytic and anti-bacterial Activities”, International Conference on Advanced Materials(ICAM),7-8 March, 2019, Organized by Nanoscience and Nanotechnology(CNN), Jamia Millia Islamia( A Central University), New Delhi. (Proceedings of International Conference on Advanced Materials, IT18,20,2019.ISBN: 978-93-86608-87-1
2. **Saini, K\***, Mahajan, D., Satyabola, D., Ekta, Gupta, N., **2016**. Green synthesis of ZnO nanoparticles and their characterization by different techniques”. (BICON-2016) Advanced Materials Science and Technology, Volume II, ISBN 978-93-83462-93-3
3. **Saini, K\***, **2016**. “ Electrochemical Oxidation of Methanol by Copper and Copper Oxide Nanoparticles” National Conference in Chemistry-2016(NCC-2016),Organized by Department of Chemistry, Shyam Lal College, University of Delhi, at India International Centre,7-8 April,2016.(Oral), full paper in proceeding, pp 162-167, ISBN 9789385824012.
4. Chaudhary, N., Malik, P., **Saini, K\***, Bhatia S.S., Bahri, S.,Ingole, P.P., Pandey, S., Agarwal, R.,Baruah, Sekhri , S., Sharma, K., Rahul, S. **2016**. Synthesis of copper nanoparticles (Cu,Cu<sub>2</sub>O,CuO ) and Characterization by UV-Visible Spectroscopy and Powder X-Ray Diffraction. National Conference in Chemistry-2016(NCC-2016),Organized by Department of Chemistry, Shyam Lal College, University of Delhi, at India International Centre,7-8 April,2016.(Oral), full paper in proceeding,pp 168-173, ISBN 9789385824012.
5. **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 Electrochemical Applications for Sustainable Future,Proc. **NCGCSTS 2016, 74-77** ISSN 978-93-83693-83-2.
6. **Saini, K\***, **2019**. Determination of Cellular structure of Azadirachta Indica and Ficus religiosa by using Folds-cope 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/IT/O1022,2019.
7. Saini, M., **Saini, K\***, Rani, N. and Bhatia, S.S. **2019**. Determination of Cellular structure and morphology of Medicinal Plant by using Folds-cope Microscopy and Scanning Electron Microscopy, National Conference on



# Miranda House UNIVERSITY OF DELHI

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/O1021,2019

8. Saini, K., Gupta, H. P., Gupta, Pandey, R. S., **2007**. Study of complexes of Cd(II) with antibiotic drug : A polarographic approach. **Conference Proc. ICMAT**, Singapore ISSN 1674-4926.
9. Saini, K., Gupta, H. P., Gupta, Dhingara, P., R. S. Pandey, **2005**.Polarographic Study of Complexes of Pb(II) with Neomycin Sulphate Salt at D.M.E in Aqueous Medium, Proceeding of Botanical products Seminar and Expo-5-7 Feb ,2005, Department of Chemistry, U.O.R. Jaipur, 2005, 227-229, With ISSN, peer- reviewed.
10. Dhingara, P., Saini, K., Gupta, H. P., Gupta, R. S. Pandey\*,**2005**. Electrochemical characterization of warforin sodium in pharmaceutical preparation by voltammetric technique Proceeding of Botanical products Seminar and Expo-5-7 Feb ,2005, Department of Chemistry, U.O.R. Jaipur,2005, 194-196, With ISSN, peer- reviewed.

## Research:

- Supervision of Ph. D Thesis: 2 students, Ongoing (Ms Nutan Rani:TRF, Sapna Yadav:CSIR,JRF) @Miranda House, University of Delhi.
- Supervisor of JRF student (Mona Saini) in DBT research project@ Miranda House.
- Supervision of M. Phil dissertations :1 ( Research Project @IIT, Delhi).
- Supervision of M.Sc. dissertations : 2 ( Research Project @IIT, Delhi).
- Supervision of B.Sc. Research Project- 1 (Summer Project @ IIT, Delhi).
- Innovation Project (MH-204) , U.G. Research Project : Completed(2013-2015) :4 students
- Innovation Project (MH-310) , U.G. Research Project: Completed (2015-2016) :6 students
- Mentor for D S Kothari Centre for Research and Innovation in Science Education@ Miranda House , summer internships (Funded by DST, Govt. India):35 UG students + 4 PG students.

## Details of participation in International Conferences held abroad / India with topic, place and dates: Invited Talk

1. **Kalawati Saini**, Presented invited Online talk in the technical session entitled as “The use of green nanotechnology for human lung adenocarcinoma (A549 cells) and high performance supercapacitor applications”. International Conference on Environmental Science & Green Energy-2021), 6-7 December, 2021 Paris (France).
2. **Kalawati Saini**, Presented invited Online talk in the technical session entitled as “Degradation of Dyes by using Innovative Photocatalytic Reactor” International conference Nanotechnology Era, Organized by Amity University, Noida, 11-15 June, 2021.
3. **Kalawati Saini**, Presented invited Online talk in the technical session entitled as “Degradation of Dyes by using Innovative Photocatalytic Reactor”. Online Workshop on short term training programme under Gyan Ganga Programme, Govt. of Rajasthan, Organized by Raj Rashi Govt. College, Alwar, (28.01.2021), 25-31 Jan., 2021.
4. **Kalawati Saini**, Presented invited Online talk in the technical session entitled as “Chem-ICT Tools: Learning Chemistry through Computer-Argus Lab” Organized by Raj Rashi Govt. College, Alwar, Short Term Course, under Gyan Ganga Programme, Govt. of Rajasthan, (27.01.2021),25-31 Jan., 2021
5. **Kalawati Saini**, Presented invited Online lecture talk in the technical session entitled as” Experimental Demo “Degradation of Dyes by using Innovative Photocatalytic Reactor.” under Material Science Association, Kanoria P.G. College, UOR, Jaipur, 4 February, 2021.
6. **Kalawati Saini**, Presented invited on “ZnO nanoparticles synthesized with extract of leaves of Azadirachta indica :



# Miranda House UNIVERSITY OF DELHI

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- Induce apoptosis in human lung cancer cells". IAC-2019, Organized by Amity university, Noida and Society for Analytical Scientist, Delhi Chapter, 12-14 Dec., 2019.
7. **Kalawati Saini**, Presented invited talk in the technical session entitled as "Exploration of Cellular structure of different plants by using Foldscope" in the Workshop: Foldscope as an Educational and Research tools, organized by Department of Biochemistry, Indira Gandhi National Open University( IGNU), New Delhi, 23 August, 2019.
  8. **Kalawati Saini**, Inaugural lecture delivered entitled as "Introductory Lecture to Foldscope" International conference on "Changing Environment: Understanding the Emerging Challenges and their Management Strategies" with Pre-conference Workshop " The Foldscope" Department of Zoology, Kalindi College, Conference Centre, University of Delhi, 10-12 April, 2019.
  9. **Kalawati Saini**, Presented invited talk entitled as "Determination of Cellular structure of Azadirachta Indica and Ficus religiosa by using Folds-cope Microscopy and Scanning Electron Microscopy", in National workshop on Advances in Microscopy and Foldscope, organized by Department of Biotechnology, MNNIT, Allahabad, 15-16 March, 2019.
  10. **Kalawati Saini**, Presented invited talk entitled " Facile Synthesis of Multi-dimensional ZnO/ZnO<sub>2</sub> Nano-structures by using Azadirachta indica and their photocatalytic and anti-bacterial Activities", International Conference on Advanced Materials(ICAM), 7-8 March, 2019, Organized by Nanoscience and Nanotechnology(CNN), Jamia Millia Islamia( A Central University), New Delhi. (Proceedings of International Conference on Advanced Materials, IT18, 20, 2019. ISBN: 978-93-86608-87-1.
  11. **Kalawati Saini**, Presented invited talk entitled "Advanced nanomaterials and nanotechnologies, under Material Science Association, organized by Kanoria P.G. Mahila Mahavidyalaya, University of Rajasthan, Jaipur, 12 September, 2018.
  12. **Kalawati Saini**, Presented invited talk on "Green Synthesis of ZnO nanoparticles by using Azadirachta indica and their photocatalytic, anti-bacterial, anti-fungal and anti-diabetic activity". European Advanced Materials Congress-2017, **Stockholm, Sweden**, 22-24 August, 2017,
  13. **Kalawati Saini**, Presented invited talk on "Anisotropic Plasmonic Copper/Copper Oxide Nanostructures by DC Electrophoretic Dissolution of Copper in Water for Plasmonic Sensing of Glucose and Oxidation of Methanol as Direct Fuel Cell". **Center for Applied Chemistry, Central University of Gujarat, India is organizing Two day National Conference on Applied Materials, held at Sector 29, Central University of Gujarat on 6-7 April, 2018.**
  14. **Kalawati Saini**, Presented invited talk on "Green Synthesis of ZnO Nanoparticles by using Jasminum and Allium Cepa and their Photocatalytic and Anti-bacterial activity". **Indian Institute of Technology, Roorkee, Three days International Conference on Nanomaterials and Nanotechnology, 6-8 December, 2017.**
  15. **Kalawati Saini**, Presented invited talk on "Chemistry of Nano-structured Materials: Fundamentals to Recent Advances". **National workshop on Instrumentation Techniques in Chemical Science Research, organized by Kanoria P.G. Mahila Mahavidyalaya, Jaipur (Rajasthan) 22-23 December, 2017.**
  16. **Kalawati Saini**, Presented invited talk on "Green Synthesis of ZnO nanoparticles by using *Syzygium cumini* and their photocatalytic, antibacterial and antidiabetic activity". **International Conference on Nanomaterials and Nanotechnology (ICNANO-2017) organized by International Association of Advanced Materials (IAAM) in collaboration with Vinoba Bhave Research Institute and University of Allahabad, India, 01 - 03 March, 2017.**
  17. **Kalawati Saini**, Presented invited talk on "Concentration-Dependent Electrochemical Synthesis of Quantum Dot and Nanoparticles of Copper and Shape-Dependent Degradation of Methyl Orange". American Advanced Materials



# Miranda House UNIVERSITY OF DELHI

Congress-2016(AAMC-2016), Miami, USA, held on the Caribbean Sea from **Miami (USA) - Nassau (Bahamas) - Cozumel (Mexico) - Miami (USA)** by the Royal Caribbean Cruise Ship "Navigator of the Seas", 04-09 December, 2016.

## Conducting minor or major research project sponsored by national agencies:

S.No	Year	Title	Period		Major/Minor	Sponsoring/ Funding Agency
			From	To		
1	2018-2020	Air Quality of Surrounded area affected by presence of pollutants in Nala Passing through Kingsway Camp behind Sri Guru Tegh Bahadur Khalsa College, University of Delhi	20.03.2018	31.03.2020	<b>8.0Lakh</b>	DBT, GOV, India, Reference No: BT/IN/Indo/Foldscope/39/2015 dated:20.03.2018
2	2015 - 2017	Sugarcane to Nanoparticles: Green Nanotechnology (MH-310)	Sep 2015	30.04.2017	<b>5.0Lakh</b>	Research Council of University of Delhi
3	2013 - 2015	More miles on Yamuna(MH-204):Innovation Project	November,2013	30.04.2015	<b>3.5 Lakh</b>	Research Council of University of Delhi

- Principal Investigator of “Synthesis and Characterization of Water-Soluble(Metal-Porphyrin) Self-Assemblies with Large Two-Photon Absorption Cross Section as Potential Agent for Photodynamic Therapy, Using Voltammetric and Other Techniques” (Funded by CSIR, New Delhi, Sanctioned:Dated.22.12.2008, Ref. No. (B-11315, EMR-I), 2009-2011.
- Principal Investigator of “Electrochemical Study of water-soluble Bis( imidazolylporphyrin) self-Assemblies with large Two- Photon absorption cross section as potential agent for Photodynamic Therapy, using Voltammetric technique “. From 1-04-07 to 30-04-09. (Funded by CSIR, New Delhi, File No. 09/086(0830)/2007-EMR-I).
- To study the effect of doping in LnSrMnO system and to study the phase transition in these system with high pressure using Mossbauer spectroscopy and other supportive technique, 20.10.2005-3.08.2006, (Major Project EMR-II, CSIR, New Delhi, File No. CSIR/UC/Phy/05/1646)
- **Fund received for organizing the workshop:**
  1. National Workshop on “Nano Road Show-2020” organized by Department of Chemistry, Miranda House, University of Delhi, 1 February, 2020, Total budget Rs. 1,25,300.00/ ( One Lakh twenty five thousand three hundred only), Sponsors: Karnataka Science and Technology Promotion Society (KSTePS), Government of Karnataka ( Rs. 71,600.00/ : Seventy one thousand six hundred only)



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### Details of refresher/orientation course/research methodology/workshop/syllabus up-gradation/teaching –learning-evaluation/technology programmes/Faculty Development Programme

S. No.	Details	Place	Period		Year	Sponsoring/Organising Agency
			From	To		
1	Workshop on Research Methodology (RM-1), Theme: Research for Resurgence	Online Programme@ Zoom Plateform:Link: <a href="https://us02web.zoom.us/j/86439700968">https://us02web.zoom.us/j/86439700968</a> Meeting ID: 864 3970 0968	10.09.2020	16.09.2020	2020	CPDHE, University of Delhi
2	Online Refresher Course in Chemistry,	Online at Swayam Portal, Annual Refresher Programme in Teaching(ARPIT)- March 2019	30.11.2018	30.03. 2019	2019	MHRD, Examination organized by National Testing Agency on 30.03.2019
3	Short term course on Nation Building	CPDHE, University of Delhi	18.12.2018	24.12.2018	2018	CPDHE, University of Delhi
4	FDP on Advancements in Integrated Sciences: Learning & Adaptation for Effective Teaching and Research	Shyamlal College, University of Delhi	10.12.2018	16.12.2018	2018	Organized in collaboration with UGC-HRDC, Jamia Millia Islamia and CSIR-IGIB, at Shyamlal College, University of Delhi
5	Biodiversity for Everyone's Life	Miranda House, University of Delhi	31.08.2018	-	2018	Organized by Miranda House in collaboration with Institute of Bioresources and sustainable development (ISBD), Manipur at Miranda House, University of Delhi.
6	One week Faculty Development Programme on Environment	Dyal Singh College, University of Delhi	04.06.2018	11.06.2018	2018	Dyal Singh College, University of Delhi



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## UNIVERSITY OF DELHI

	Sustainability and Higher Education					
7	The STEM Teacher Training Workshop on Research Based Pedagogical Tools	IISER, Mohali, conducted by a team from Centre for Science Education, Sheffield Hallam University, UK	23.01.2017	25.01.2017	2017	DBT, Govt. of India, Newton Bhabha Fund of the British Council, IISER, Pune, MHRD, Govt. of India
8	Training In Disaster Crisis Management, Basic Life Support & Emergency First Aid	Organized by National Task Force for Disaster Management	19.04.2017	One Day	2017	Organized by National Task Force for Disaster Management
9	BIOTIKOS 2017, Trends in Nanobiotechnology	Department of Biotechnology, Teri University, New Delhi	28.09.2017	29.09.2017	2017	Sponsored by DBT, Govt. of India Organized by Teri University
10	Webinars on COVID-19: Risk Management & Simulation Efforts"	Department of Physics, MNIT, Jaipur	2.07.2020	3.07.2020	2020	Department of Physics, MNIT, Jaipur
11	Stem Cell Research for COVID-19	Online by Vels Institute of Science, Technology and Advanced Studies, Chennai in Association with National Council of Vocational and Research Training, New Delhi	25.05.2020		2020	Vels Institute of Science, Technology and Advanced Studies, Chennai in Association with National Council of Vocational and Research Training, New Delhi





# Miranda House

## UNIVERSITY OF DELHI

### Organizing seminars/ conferences/workshops, other college/university activities:

S. No	Year	Details	Place	Period		Sponsoring/Organising Agency
				From	To	
1	2021	International webinar on Empowering Diversity in Science	Miranda House, University of Delhi	12.02.2021		Chemical Society, Miranda House, DU
2	2020	Organizing member of Two days National Webinar on Learnings from the Corona Pandemic	Department of Chemistry, Miranda House, University of Delhi	24-09-2020	25.09.2020	Chemical Society, Miranda House, DU
3	2019 & 2020	Organizing Member of GWB - IUPAC 2019 & 2020	Miranda House, University of Delhi	12.02.2019 & 12.02.2020		DST, Govt. of India & DBT Star college project, Miranda House, DU
4	2020	Nano Road Show-2020	Miranda House, University of Delhi	01.02.2020	One Day	Department of Chemistry, Miranda House, University of Delhi & IIT, Delhi, Sponsor by KSTePS, Govt. of Karnataka
5	2019	Organized "Invited Lecture delivered on Foldscope by Dr. Poonam Singh, Senior Scientist, CECRI, Karaikudi, Tamilnadu	Department of Chemistry, Miranda House	30.08.2019		Under Twinning Programme of DBT,
6	2018	Field visit for Foldscope Project	ICAR, Meghalaya	02.11.2018	One Day	DBT, Research Project, Department of Chemistry, Miranda House, University of Delhi
7	2018	Resource Person for the Course on Laboratory Safety and Handling of Equipment	Department of Chemistry, Miranda House, University of Delhi	02.08.2018	03.08.2018	Department of Chemistry, Miranda House, University of Delhi
8	2018	Convener for Workshop on Foldscope	MeECL Secondary School, Barapani,	03.11.2018	One Day	DBT, Research Project, Department of Chemistry, Miranda House, University of Delhi &



# Miranda House

## UNIVERSITY OF DELHI

			Meghalaya			ICAR, Meghalaya
9	2018-2019	Twinning Programme with Indian Council of Agricultural Research (ICAR), North Eastern Hill (NEH) region, Umiam, Meghalaya and Department of Zoology, Central Cotton University, Guwahati, Assam	Dr. R. Krishnappa, Senior Scientist, Plant Physiology Department, (ICAR), North Eastern Hill (NEH) region, Umiam, Meghalaya and Dr. Anjana Singha Neoram, Assistant Professor, Department of Zoology, Cotton University, Miranda House, University of Delhi	2018	2019	Under Twinning Programme of DBT, Indo-USA Foldscope Scheme
10	2018	Field visit for Foldscope Project	ICAR, Meghalaya	02.11.2018	One Day	DBT, Research Project, Department of Chemistry, Miranda House, University of Delhi
11	2017	Organizing member of One-day "Indo-Hungarian Symposium" on "Recent Advances in Chemistry and Biology" (INHCAB-2017)	Department of Chemistry, Miranda House, University of Delhi	11.12.2017	One Day	DST, Govt of India, Science Education (DSKC)
12	2016	Green Nanotechnology for Beginners"	Miranda House, University of Delhi	28.01.2016	One Day	Innovation Project-310, Miranda House, DU

### Participation in National/International Conference:

1. Participated in International conference "Energetic Beam Technology: From Materials Engineering to Diagnostics" 21-25 June, 2021, Organized by Amity University, Noida.
2. Participated in Nanotechnology Era, 11-15 June, 2021, Organized by Amity University, Noida.
3. Yadav, S., Rani, N., Saini, K. "Green Synthesis of ZnO and CuO NPs using Ficus benghalensis Leaf Extract and their Comparative Study for Electrode Materials for High Performance Supercapacitor Application" in the 2021 Global



# Miranda House UNIVERSITY OF DELHI

Conference on Recent Advances in Sustainable Materials (GC-RASM 2021) held at A.J. Institute of Engineering & Technology, Karnataka, India during 29 - 30, July 2021.

4. Participated in "Webinars on COVID-19: Risk Management & Simulation Efforts" conducted by the Department of Physics, MNIT Jaipur during 02-03 July 2020.
5. Participated in Online Webinar on 'An Introduction to Radiometry and Photometry' on 9 May 2020 at 10:30 am, Organized by Physics Society, Miranda House, University of Delhi.
6. Participated in Online Webinar on "POST COVID 19 LOCKDOWN: Implications and Management" on 20 May 2020, Organized by Physics Society, Miranda House, University of Delhi.
7. Sangwan, E., Mahajan, D., Satyabola, D., Saini, K., 2016. Determination of water quality parameters and other pollutants ( $\text{Cl}^-$ ,  $\text{PO}_4^{3-}$ , Fe,  $\text{NH}_3$ ) from Water and Soil Samples of the River Yamuna at Different Locations in the NCT of Delhi, India: "An Innovative Approach". National Conference on "Combating Industrial Pollution For Sustainable Environment– A Fusion Of Industrial and Scientific Efforts" (CIPSE - 2016), Department of Chemistry, Gargi College, 22-23 Sep., 2016 (Poster).
8. Satyabola, D., Mahajan, D. Sangwan, E., Saini, K., Detection of Heavy Metals (Cr, Co, Ni, Cu, Cd) using Spectrophotometer from Water and Soil Samples of the River Yamuna at Different Locations in the NCT of Delhi, India.
9. National Conference on "Combating Industrial Pollution For Sustainable Environment– A Fusion Of Industrial and Scientific Efforts" (CIPSE - 2016), Department of Chemistry, Gargi College, 22-23 Sep., 2016 (Poster).

## Presentation of researchwork in National Conference / International/Workshop/Seminar:

S.No.	Title of Lecture/Paper	Resource Person/Paper presented	Details	Date of presentation	Duration (in minutes)	Sponsoring Agency
1	Green Synthesis of Rod shaped ZnO using Origanum majorana Leaf Extract and their Study for Antibacterial Applications.	Oral	Online International Conference on Multidisciplinary Aspects of Materials in Engineering (IC-MAME 2021)	09.10.2021	10	Department of Chemistry, Panjab University, Chandigarh
2	Green synthesis of ZnO nanoparticles using extract of <i>Azadirachta indica</i> and their Study for antibacterial supercapacitor Applications.	Oral	Online ICCMDP-2021	10.09.2021	10	Deen Dyal Upadhyaya University, Gujarat
3	Template Free Electrochemical Synthesis of	Oral	Online National Symposium on Electrochemical	21-01.2021-22.01.2021	15	Electrochemical Society of India Indian Institute



# Miranda House

## UNIVERSITY OF DELHI

	Multidimensional Copper/Copper Oxide Nanoparticles and their Characterization.		Science and Technology (NSEST-2020)			of Science (IISc), Bangalore
4	ZnO nanoparticles synthesized with extract of leaves of Azadirachta indica: Induce apoptosis in human lung cancer cells	Presented Research Paper	Nano-Road-Show-2020	01.02.2020		Miranda House, University of Delhi, IIT, Delhi
5	ZnO Nanoparticles synthesized with extract of leaves of Azadirachta Indica: Induce apoptosis in human lung cancer cells	Oral/Invited	Indian Analytical Congress-2019  (An International Analytical Conference and Exhibition)	12-14 December, 2019	15	Organized by  Indian Society of Analytical Scientists (ISAS)-Delhi Chapter & Federation of Indian Chambers of Commerce and Industry (FICCI) at  AMITY University, Noida
6	Synthesized Nanomaterials for Biomedical Applications	Lectures delivered for add-on course students	Resource person	28.09.2019	60	Miranda House, University of Delhi, under Add-on
7	Workshop on Foldscope: Cellular Structural Determination by using Innovative tool: The Foldscope	Lecture Delivered & Hands-on workshop on Foldscope	Workshop on Foldscope for Add-on Course students (in Nanochemistry)	27 .09.2019	60 minutes + 4 hrs	Organized by DBT-Research Project, Miranda House, University of Delhi
8	Introductory Lecture to Foldscope	Inaugural lecture	International conference on "Changing Environment: Understanding the Emerging Challenges and their Management Strategies" with Pre-conference Workshop"	10.04.2019-12.04.2019	60	Department of Zoology, Kalindi College, Conference Centre, University of Delhi



# Miranda House

## UNIVERSITY OF DELHI

9	*Preparation of TEM grid *Electrochemical Synthesis of ZnO/ZnO <sub>2</sub> Nanoparticles and Characterizations	Lectures delivered for add-on course students	Resource person for the workshop/Lecture	2.01.2019 & 8.02.2019, 27.02.2019	6 hrs	Miranda House, University of Delhi, under Add-on course in Nanochemistry
10	Characterization of Materials using advanced Techniques	Lectures delivered for add-on course students	Resource person	14.10.2019	60	Miranda House, University of Delhi, under Add-on in Nanochemistry
11	Multi-dimensional ZnO/ZnO <sub>2</sub> Nanostructures by using <i>Azadirachta indica</i> and their photocatalytic, anti-bacterial and anti-diabetic Activities	Oral	National Conference on Nanotechnology (NTNA-2018)	27.09.2018-28.09.2018	10	A.R.S.D. College, University of Delhi
12	Plant Structural Changes (Stomata) and Dynamics of Aquatic Micro Flora/Fauna through Foldscope	Lecture Delivered & Hands-on workshop on Foldscope	One-day Orientation workshop on Foldscope: Plant Structural Changes (Stomata) and Dynamics of Aquatic Micro Flora/Fauna through Foldscope	03.11.2018	One Day	Under twinning Programme of DBT Research project with Physiology Division, Research Complex, NEH Region, ICAR, Meghalaya.
13	Workshop on Foldscope: Cellular Structural Determination by using Innovative tool: The Foldscope	Lecture Delivered & Hands-on workshop on Foldscope	Workshop on Foldscope for Life Science Students	24.09.2018	60 minutes + 2.5hrs	Organized by DBT-Research Project, Miranda House, University of Delhi
14	XPS and optical studies of different morphologies of ZnO nanostructures Synthesized by Green methods.	Oral Presentation	National Workshop (.NSHE), 20 March 2019.	20.03.2018	10	Dault Ram College, Department of Chemistry, University of Delhi



# Miranda House

## UNIVERSITY OF DELHI

15	Efficient red luminescent AgAu alloy cluster@Titania core-shell	Poster	International Conference on Innovation and Strategies in Trans-discipline to Face Integrated Development and Environmental Challenges(ICISTIDE C-2018)	09.03.2018	-	Department of Chemistry, R.R. College, Alwar (Rajasthan)
16	Green Synthesis of ZnO Nanoparticles by using <i>Jasminum</i> and <i>Allium Cepa</i> and their Photocatalytic and Anti-bacterial activity.	Invited	International Conference on Nanomaterials and Nanotechnology	6-8 Dec. 2017	20	Indian Institute of Technology, Roorkee
17	Synthesis of Cu/Cu <sub>2</sub> O/CuO Nanoparticles by Chemical wet method and Characterizations by using UV-Visible Spectroscopy	Lectures delivered for add-on course students	Resource person for the workshop/Lecture	25.09.2017	4 hrs	Miranda House, University of Delhi, under Add-on in Nanochemistry
18	Green synthesis of ZnO nanoparticles and their characterization by different techniques.	(Oral)	11th Biyani International Conference (BICON-2016), India-Japan International Conference, On Advanced Materials Science and Technology.20-22 October 2016.	22.10.2016		Biyani Girls College, Department of Science, Jaipur, October 20-22, 2016
19	*Preparation of TEM grid for getting morphology of Nanoparticles & *Photocatalytic degradation of dye by ZnO/ZnO <sub>2</sub> Nano-catalyst	Lectures delivered for add-on course students	Resource person for the workshop/Lecture	22.09.2017 & 19.04.2018	6 hrs	Miranda House, University of Delhi, under Add-on in nanochemistry
20	One Pot, Template Free	Oral Presentation	Facile, National Conference on	22.09.2016	10	Department of Chemistry, Gargi



# Miranda House UNIVERSITY OF DELHI

	Electrochemical Synthesis of Multidimensional Copper/Copper Oxide Nanoparticles: Role of these Nanoparticles in Direct Methanol Fuel Cell.		“Combating Industrial Pollution For Sustainable Environment– A Fusion Of Industrial and Scientific Efforts” (CIPSE - 2016)			College, 22-23 Sep., 2016
21	Green Synthesis of ZnO Nanoparticles by using <i>Syzygium cumini</i> and their Photocatalytic activity	Oral Presentation	International Conference on Green Chemistry in Environment Sustainability & Chemical Education (ICGC-2016)	17.11.2016	10	Department of Chemistry, Dault Ram College, University of Delhi
22	A Malonate-Linked Copper (II) Metal Organic Frameworks: X-ray Crystallographic structure.	(Oral)	National Symposium on Electrochemical Science and Technology-2016 (NSEST-2016),	16.07.2016	10	Indian Institute of Science(IISc), Bangalore, Department of Chemistry, 16-17 July, 2016
23	A Malonate-Linked Copper (II) Metal Organic Frameworks: X-ray Crystallographic Structure and Characterizations by other Supportive Techniques	Oral Presentation	International Conference on Frontiers at the Chemistry-Allied Sciences Interfaces	25-26 April 2016	10	Centre for Advanced Study & Department of Chemistry, UOR, Jaipur
19	Electrochemical synthesis of Organic Light Emitting Diode(OLED) and characterizations by X-ray Diffraction and supportive techniques.	Research Paper/Oral	National Symposium on Emerging Trends in Applied Chemical Sciences (ETACS-2016)	18.03.2016	30	Department of Chemistry, School of Chemical Sciences and Pharmacy, Central University of Rajasthan(CURAJ)
20	Electrochemical Synthesis of	(Abstract id: 10-IC-	International Conference of Recent	17.03.2016	10	Jaipur National University,



# Miranda House

## UNIVERSITY OF DELHI

	A Oxalate-Linked Copper (II) Metal Organic Frameworks: X-ray Crystallographic structure and its Magnetic Properties.	873)(Oral),	Trend in Engineering and Material Science (ICEMS-2016) ,17-18 March,2016,			Jaipur
21	Electrochemical synthesis of Organic Light Emitting Diode (OLED) and characterizations by X-ray Diffraction and supportive techniques.	Presented Research Paper/oral	National Seminar on Role of Analytical Scientist for Sustainable Development.	05.04.2016	10	Organized by Department of Chemistry, Hansraj College, University of Delhi and Society for Analytical Scientist, 4-5 March, 2016.
22	Electrochemical Synthesis of Copper(II) based Metal Organic Frameworks: Determination of Structure by Single X-ray Diffraction Crystallography and other supportive Techniques.	Presented Research Paper/oral	International Conference On Materials Science & Technology (ICMTech - 2016), India	1.03.2016-4.03.2016	10	Conference Centre, University of Delhi
23	Synthesis of Copper nanoparticles and characterizations by using different Techniques: J. Mat. NanoSci. 2016 3(1), S13 ISSN 2394-0867	Research paper presented/poster	Indo-Portuguese Workshop on Emerging Trends of Nanotechnology in Chemistry and Biology (INCB-2016)	12-13 Feb., 2016	15	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
22	synthesis of Nanoparticle using different capping agents & Resource person for	Resource Person	Green Nanotechnology for Beginners	16.01.2016		Department of Chemistry, Miranda House, University of Delhi





# Miranda House UNIVERSITY OF DELHI

	Hands-on workshop					
24	A Green Synthesis of Copper and Copper Oxide Nanoparticles Via Electrochemical Route and its Electrocatalytic Applications for Sustainable Future.	(Poster Presentation)	National Conference on Green Chemistry and Sustainable Technologies for Society-2016,	12.01.2016		Organized by Department of Chemistry & Electrical and Electronics Engineering, Government Women Engineering College, Ajmer, January 11-12, 2016.
25	Electrochemical Synthesis of copper/copper oxides and their applications.	(Poster Presentation)	National Conference on Advanced Functional Materials & Their Applications(AFMA-2015)	12.12.2015		Organized by Department of Physics in association with Dept. of Mechanical Engineering, Government Women Engineering College, Ajmer,( 11-12 Dec.,2015).
26	Synthesis of Copper Nanoparticles via Electrochemical Route and Characterization by Different Techniques	Research paper presented/Poster	RSC WORKSHOP ON Chemistry for tomorrow'S world	2-3 Dec.,2015		Green Chemistry Network Centre, University of Delhi, Manav Rachana University, Faridabad, Shiv Nadar University, Greater Noida, at New Delhi
27	Synthesis & Characterization of Nanoporphyrin and their computational study	Lectures delivered for Innovation project students(MH-206) & Life Science students	Resource person for the workshop on Computational Profiling of Some Nano-system	30.05.2014	60	Organized under (MH-206) Innovation Project, Miranda House, University of Delhi

### Membership of Professional Bodies:

- Electrochemical Society, IISc. Bangalore, Life member.
- International Association of Advanced Material (IAAM), Validity (2017-2021)
- American Chemical Society, annual membership (2005-2006)
- Indian Science Congress, annual membership (2004-2005.2005-2006)
- Green Chemistry Network Centre (GCNC), Life member.



# Miranda House

## UNIVERSITY OF DELHI

- Society of Analytical Chemist, Life member.
- Chemical Society, IIT, Delhi, Life member.

### Committee Member @ Miranda House:

- Liaison Officer : (OBC Category): (2019- Onwards)
- PRO & Roaster Committee member:(2019- Onwards)
- Sports Committee member:( 2017-Onwards)

### Administrative responsibilities such as Chairperson/ Co-Chairperson/Committee member.

S. No.	Year	Nature of Activity	Designation	Institution/Department	Period	
					From	To
1	2022	Celebration of birthday of Savitribai Phule, National Webinar “Women who inspire us”	Judge	Women advisory committee, Dyal Singh College, University of Delhi	10.01.2022	
2	2021	Member of technical committee, ICRDET-2021	Reviewer,ICRDET-2021	Anand International College of Engineering, Jaipur Near Kanota, Agra Road, Jaipur-303012	2021	
3	2021	Recruitment of permanent faculty	Panelist (OBC observer)	National School of Drama (NSD), New Delhi	10.02.2021	
4	2019	For paper presentation on National Science day,	Panelist (Judge)	International Blue Bell School, Delhi, July 24, 2019.	24.07.2010	
5	2019	National workshop on Advances in Microscopy and Foldscope.	Judge	Organized by Department of Biotechnology, MNNIT, Allahabad, 15-16 March,2019.	15.03.2019	16.03.2019
6	2017-2020	Coordinator for Add-on Course in Nano-Chemistry (60 Hours course)	Coordinator	Chemistry Department, Miranda House, DU	July, 2017	June,2020
7	2017-2018 & 2018-2019	Admission Committee, B.Sc. Life Science, (admissions )	Member of Academic committee	Chemistry Department, Miranda House, DU	July, 2017	June,2019
8	2017	Chair of one Session of International Conference on Nanomaterials and Nanotechnology (ICNO-2017,6-8 December, 2017) organized by IIT Roorkee	Chairperson	IIT, Roorkee	08.12.2017	
9	2017	Chair of one Session of International Conference on European Advanced Materials Congress (EAMC-2017,22-23 August,2017)	Chairperson	organized by (EAMC) Stockholm, Sweden	22.08.2017	
10	2017	NSS officer for two months, February-March,2017)	UG	Miranda House, University of Delhi	01.02.2017	31.03.2017
11	2016-2017	Selection of best candidate for best science & Arts College award	Selection Committee	Miranda House, DU	Feb/March,2017	



# Miranda House

## UNIVERSITY OF DELHI

			member (NSS Advisor/Officer)			
12	2016-2017	Admission Committee, B.Sc.(Hons), Chemistry (admissions of B.Sc.(H) year and M.Sc.(P), Chemistry	Member of Academic committee	Chemistry Department, Miranda House, DU	July, 2016	June, 2017
13	2017	Co-Chair of one Session of International Conference on Nanomaterials and Nanotechnology (ICNANO-2017, 1-3 March, 2017)	Chairperson	Vinoba Bhave Research Centre, Allahabad University, UP	03.03.2017	
14	2016	Judge for the Inter College Poster Making Competition" REFLUX-16"	Judge	Ramjus College, University of Delhi	09.03.2016	