


FACULTY PROFILE PROFORMA

Title (Ms/Mr/Dr/Prof)	Dr.	First Name	UPASANA	Last Name	ISSAR	Photograph
Designation	ASSISTANT PROFESSOR (AD HOC)					
Department	CHEMISTRY					
Address (Official)	Kalindi College, University of Delhi, Block 49, East Patel Nagar, Patel Nagar, New Delhi, Delhi-110008					
Phone No.	9810160325					
Email	upasana139@gmail.com , upasana@kalindi.du.ac.in					
Education						
Subject	Institution	Year	Details			
PhD in Chemistry	University of Delhi	2014	With Prof. Rita Kakkar, Department of Chemistry, University of Delhi Thesis Title “ <i>In Silico</i> Studies of DNA Interactions with Minor Groove Binders Based on the Hoechst Family”			
M. Sc. Chemistry	Department of Chemistry, University of Delhi (enrolled from Hans Raj College)	2009	Physical Chemistry Specialization			
B. Sc. (H) Chemistry	Daulat Ram College, University of Delhi	2007	Honours degree in Chemistry with other subjects such as Physics, Mathematics, Environmental Chemistry and English			
Career Profile						
Organisation/Institution	Designation	Duration		Role		
Kalindi College, University of Delhi	Assistant Professor (ad hoc)	08-01-2020 to till date		To teach chemistry to students of B.Sc. (H) chemistry, B.Sc. (P) Life Sciences		
Kirori Mal College, University of Delhi	Assistant Professor (ad hoc)	20-07-2015 to 07-01-2020		To teach chemistry to students of B.Sc. (H) chemistry, B.Sc. (P) Life Sciences, Physical Sciences,		

			Analytical Chemistry
St. Stephen's College, University of Delhi	Assistant Professor (ad hoc)	13-02-2013 to 22-05-2013 & 01-08-2013 to 19-07-2015	To teach chemistry to students of B.Sc. (H) chemistry, B.Sc. (P) Physical Sciences
Daulat Ram College, University of Delhi	Assistant Professor (Guest)	January 2012 - April 2013	Worked as a Guest Faculty in the Department of Chemistry
Miranda House, University of Delhi	Assistant Professor (Guest)	October 2011- March 2012	Worked as a Guest Faculty in the Department of Chemistry to teach cluster course students from annual mode

Research Interests/Specialization

Physical Chemistry, Computational Chemistry, Molecular Modelling and Drug Designing, Quantum chemistry and spectroscopy

Administrative Assignments / Contribution to corporate life

- Member of B.Sc. (P) Physical Sciences and Analytical Chemistry Society, Kiroi Mal College, 2017-19
- Member in drafting report for NIRF, Kiroi Mal College, 2017, 2018
- Member of Departmental Seminar Committee, Kiroi Mal College, 2016-2019
- Member of Laboratory Management Committee, Department of Chemistry, Kiroi Mal College, 2016-19
- Member of Departmental Discipline Committee, Kiroi Mal College, 2016-2019
- Member of Standing Committee Admissions, Kiroi Mal College, 2016
- Member of Self Study Report (SSR) drafting committee in NAAC 2016, Kiroi Mal College
- Member of Departmental & College Committees for NAAC Accreditation, Kiroi Mal College, 2016.

Teaching Experiences (Subject/Courses taught)

Theory Papers

- Chemical Thermodynamics & Solid state to B.Sc. (H) Chemistry I year
- Phase Equilibrium, Binary Solutions & Conductance & electrochemistry to B.Sc. (H) Chemistry II year
- States of matter & chemical kinetics to B.Sc. (P) II year students.
- IT Skills for Chemists SEC paper to B.Sc. (H) and B.Sc. (P) students.
- Quantum Chemistry, Molecular Spectroscopy, Application of Computers in Chemistry & Environmental Chemistry to B.Sc. (H) Chemistry III year
- Atomic structure & chemical bonding to B.Sc. (H) Physics I year
- Chemical Thermodynamics & Ionic Equilibrium to B.Sc. Physical Sciences with Computer Science III year Concurrent Paper.

- Chemical Thermodynamics, Ionic Equilibrium, Phase Equilibrium, Binary Solutions, Quantum Chemistry & Solid state to B.Sc. Physical Sciences/Life Sciences
- Quantitative Methods of Analysis (Volumetric Analysis) to B.Sc. Appl. Physical Sciences- Analytical Chemistry II year

Research Guidance

Nil

Publication (Peer Reviewed/Indexed Journals)

Year of Publication	Title	Journal (Name of the journal. Vol Issue ISSN)	Co-Authors
2019	Combined pharmacophore-guided 3D-QSAR, molecular docking, and virtual screening on bis-benzimidazoles and ter-benzimidazoles as DNA-topoisomerase I poisons	Structural Chemistry, vol. 30, Pg: 1185– 1201, ISSN: 1572- 9001	Upasana Issar , Richa Arora, Tripti Kumari, Rita Kakkar
2018	Identification of novel urease inhibitors: pharmacophore modeling, virtual screening and molecular docking studies	Journal of Biomolecular Structure and Dynamics, vol. 36 Pg. 1-15 ISSN: 1538-0254	Richa Arora, Upasana Issar , Rita Kakkar
2018	Theoretical investigation of organotin(IV) complexes of substituted benzohydroxamic acids.	Computational & Theoretical Chemistry Volume: 1138 Page No.: 57-65 ISSN: 2210- 271X	Richa Arora, Upasana Issar & Rita Kakkar
2018	In Silico study of the active site of Helicobacter pylori urease and its inhibition by hydroxamic acids.	Journal of Molecular Graphics & Modelling Volume: 83 Page No.: 64-73 ISSN: 1093- 3263	Richa Arora, Upasana Issar & Rita Kakkar
2017	Conformational properties of DNA minor groove binder Hoechst 33258 in gas phase and in aqueous solution.	Computational & Theoretical Chemistry Volume: 1113 Page No.: 32-41 ISSN: 2210- 271X	Upasana Issar , Tripti Kumari, Richa Arora & Rita Kakkar
2017	Theoretical Study of the Molecular Structure and Intramolecular Proton Transfer in Benzohydroxamic Acid.	Computational & Theoretical Chemistry Volume: 1105 Page No.: 18-26 ISSN: 2210- 271X	Richa Arora, Upasana Issar & Rita Kakkar
2015	Assessment of Molecular Binding of Hoechst 33258 Analogues into DNA Using Docking and MM/GBSA approach.	Journal of Computational Science Volume: 10 Page No.: 166–177 ISSN: 1877- 7503	Upasana Issar , Tripti Kumari & Rita Kakkar
2014	Docking modes of BB-3497 into the PDF active site – a comparison of the	Current Computer-Aided Drug Design	Tripti Kumari, Upasana

	pure MM and QM/MM based docking strategies.	Volume: 10 Page No.: 315-326 ISSN: 1875- 6697	Issar & Rita Kakkar
2013	Structures and Stabilities of Alkaline Earth Metal Oxide Nanoclusters: A DFT Study	Journal of Theoretical Chemistry Volume: 2013 Page No.: 14 pages ISSN: 2314- 6184	Prinka Batra, Ritu Gaba, Upasana Issar & Rita Kakkar
2013	DNA Minor Groove Binder Hoechst 33258 and its Analogues: A Review	International Review of Biophysical Chemistry (IREBIC) Volume: 4 Page No.: 49-66 ISSN: 2038- 0321	Upasana Issar & Rita Kakkar

Refresher Course/ Faculty development Programme/ Faculty Training Programme

1. Successfully completed **online faculty development program** on “Innovation in Scientific Research Methods” held from **14th to 18th October 2020** organized under the aegis of DBT star college scheme, Kirori Mal College, University of Delhi.
2. Successfully completed the **National one-week online faculty training program** on “**Pedagogical Training for Effective Online Teaching & Learning**” organized by Deen Dayal Upadhyaya College, University of Delhi and K.T.H.M, college, Nashik under the internal quality assurance cell and DBT star college program from **3rd to 10th August, 2020**.
3. Completed "One Week **Online Faculty Development Programme**" from **21st May- 26th May 2020** on “**Multimedia enriched e-Content Development**” **OFDP 1**" organized by Guru Angad Dev Teaching Learning Centre (GAD-TLC), SGTB Khalsa College, a center of MHRD under PMMMMNMTT.
4. Successfully Completed a four-month **Online Refresher Course** in Chemistry under Annual Refresher Programme in Teaching (**ARPIT-2019**) with **91.01%** marks, organized by SWAYAM, GOI from **1st September 2019 to 31st December 2019**.

Seminar/Workshop/Conferences Presentation/Organisation

Attended and Presented research work

- Participated and Won the **Best Oral Paper Presentation** award at National Conference on Relationship between Chemical Sciences and Society RCSS-2020, 16th - 17th January 2020, Shivaji College, University of Delhi.
- Participated and presented paper on the theme “Frontier areas of research” in the **Young Scientist’s Conference, as a part of “ India International Science Festival-2019”** held at Biswa Bangla Convention center, Kolkata, during November 5-8, 2019
- Participated and presented a short lecture and poster on the paper entitled “In Silico Studies of Interaction of Hoechst 33258 within Minor Groove of B-DNA” at **Albany 2019: The 20th Conversation**, June 11-15, 2019 held at State University of New York, Albany, USA.
- Participated in “**IUPAC 2019: Symposium on Empowering Women in Chemistry: A Global Networking Event**” held on 12 February 2019 at Miranda House, University of Delhi.
- Gave oral presentation on the paper entitled “Pharmacophore Modelling, 3D-QSAR, Molecular Docking and Pharmacokinetic Studies on Bis-Benzimidazoles and Ter-Benzimidazoles as Topoisomerase I Poisons and Anti-Tumour Agents” in the **International Conference on Pure and Applied Chemistry (ICPAC-2018)** held in Mauritius from 2-6 July 2018, organized by University of Mauritius.

- Presented the poster on the paper entitled “In silico Study of the Active Site of Helicobacter pylori Urease and its Inhibition by Hydroxamic Acids” in the **International Conference on Pure and Applied Chemistry (ICPAC-2018)** held in Mauritius from 2-6 July 2018, organized by University of Mauritius.
- Participated and presented research work in **National Conference on "Emerging Trends and Advances in Chemical Sciences"** organized by St. Stephen's College, University of Delhi from 25-26 September 2018.
- Attended “**National Workshop on Computational Chemistry and Molecular Modelling**” organized by Guru Angad Dev Teaching Learning Center (GAD-TLC) of MHRD on 23rd March 2018.
- Attended “**ACS on Campus**” event organized by University of Delhi on 5th February 2018 to attain insights on latest tools developed by ACS which help in improving the quality of research articles.
- Participated in National Conference on **Emerging Trends and Future Challenges in Chemical Sciences (ETFC-2016)** held on 3-4 February 2016 at Conference Centre DU, organized by Kirori Mal College, University of Delhi.
- Presented a **Keynote e-presentation** in “**Virtual Conference on Computational Chemistry, VCCC-2014**” organised by **University of Mauritius** from 1st -31st August 2014 on the topic “Assessment of Molecular Binding of Hoechst 33258 Analogues into DNA using Docking and MM/GBSA Approach”.
- Attended **Recent Advances in Computer Aided Drug Design** workshop organized by Schrödinger at IISc, Bangalore in September' 2013.
- Attended the five day workshop on **GAUSSIAN 09: Theory and Practice** held in New Delhi between 17th December – 21st December' 2013.
- Attended the workshop on “**Recent trends in Green Chemistry**” organized by Department of Chemistry, **Daulat Ram College**, University of Delhi on 11th - 13th January 2012.
- Participated in the workshop on “**Recent Advances in Computer Aided Drug Design**” held in December 2011, at INMAS, Timarpur, Delhi.

Organizer/ Resource Person

- Contributed in the execution of documentary on Marie Curie: A Life Story as **Staff Advisor** in the academic session 2020-21 under रसायन, Chemical Society of Kalindi College, University of Delhi.
- Contributed as a **Resource Person** and as an **Organizing member** in the workshop entitled “Introduction to Scientific Research World” held on **28th October 2020** under रसायन, Chemical Society of Kalindi College, University of Delhi.
- Successfully organized an “Online Inter-College Poster Competition” under रसायन, Chemical Society of Kalindi College, University of Delhi in **October 2020**.
- Successfully organized a webinar on “Process and Challenges of Drug Discovery- A Chemist's Perspective” held on **6th October 2020** under रसायन, Chemical Society of Kalindi College, University of Delhi.
- **Organizing Member** in organizing **first and second National Conference on Emerging Trends and Future Challenges in Chemical Sciences, ETFC-2016 and ETFC-2020** held at Conference Centre DU, organized by Kirori Mal College, University of Delhi in February 2016 and January 2020 respectively.
- Participated as a **Resource person** in the workshop on **Electronic Structure, Atomistic and Statistical Modeling in Chemistry, Materials and Life Sciences** organized by **Schrödinger Materials and Royal Society of Chemistry** in the University of Delhi from 8th – 10th October' 2014.

- Conducted a module on “**Analysis of sodium and potassium ions by flame photometer**” as a **Resource Person** in the **In-House Skill Development Certificate Course 2015-16** at **Daulat Ram College**, University of Delhi.

Webinars/Virtual conference

- Attended a webinar on “*Correlation of Environmental Chemistry in National Education Policy*” by Dr. Balaram Pani, organized by the Department of Chemistry, Shivaji College, University of Delhi under the aegis of DBT sponsored Star College Scheme on **27th September, 2020**.
- Attended a Webinar on “*National Education Policy (NEP)-2020 for Quality Higher Education*” by Professor A K Bakhshi organized by the Department of Chemistry, Shivaji College, University of Delhi on **19th September, 2020**.
- Participated in two days National Webinar on “*Learnings from the Corona Pandemic*” organized by Department of Chemistry, Miranda House from **24 -25 September 2020**.
- Participated in two days webinar on “*Recent Advances in Nanoscience and Its Applications*” held between **July 27-28, 2020** organized by SCNS, JNU.
- Actively participated in webinar on “*Computational Chemistry-A modern Chemist’s tool*” organized by department of basic sciences and humanities and ACS student chapter of KJ Somaniya institute of engineering and information technology, Sion, Mumbai on **23rd July 2020**.
- Actively participated in the Fourth JNU Workshop for Empowering Teaching through Online Mode (JNU-WETOM IV) on the theme ‘*Going Online: Classroom, Field Work & Research*’ held on **July 11-12, 2020**.
- Attended Indo-UK Virtual Conference on ‘*Current Innovations and the Future of Therapeutic Developments (CIFTD-2020)*’ organized by Centre for Biomaterials, Cellular and Molecular Theranostics (CBCMT) Vellore Institute of Technology (VIT), Tamil Nadu, from **June 1- 3, 2020**
- Participated in National Webinar on “*Innovation, Social Entrepreneurship & Intellectual Property Rights (IPR)*” organized by IQACs of five colleges of Nagpur on **30th May 2020**
- Participated in the Two Day International FDP Webinar on “*Challenges and Opportunities in Higher Education in COVID 19 Scenario: The Way Forward*” organised by St. Joseph’s College for Women (Autonomous) Visakhapatnam – 530004, from **27 to 28 May 2020**.
- Participated in the International Webinar, DOCTRINA-5 organized by Department of Chemistry & IQAC of Sir Syed College, Taliparamba, Kerala, India on **26th May 2020**
- Participated in National Webinar on “*e-Content Development Methodology: Four Quadrant Model, OERs and Copyright issues*” organized by Guru Angad Dev Teaching Learning Centre (GAD-TLC), SGTB Khalsa College, a center of MHRD under PMMMNMTT on **15th May 2020**.
- Attended a webinar on “*Search, Research and Publication Ethics*” on **4th May 2020** organized by Kalindi College, University of Delhi
- Attended National Webinar on “*Challenges & Opportunities before Indian Higher education due to Covid-19*” by Prof. Ved Prakash organized by Guru Angad Dev Teaching Learning Centre (GAD-TLC), SGTB Khalsa College, a center of MHRD under PMMMNMTT on **2nd May 2020**.
- Participated in the Faculty Development Programme National Webinar entitled “*Towards Excellence in Higher Education in India in the 21st Century: Challenges and Opportunities*” organized by Guru Angad Dev Teaching Learning Centre (GAD-TLC), SGTB Khalsa College, a center of MHRD under PMMMNMTT on **29th April 2020**
- Participated in the Faculty Development Programme National Webinar entitled “*Roles of Teachers in Technology driven Higher Education*” organized by Guru Angad Dev Teaching Learning Centre (GAD-TLC), SGTB Khalsa College, a center of MHRD under PMMMNMTT on **28th April 2020**
- Participated in the Faculty Development Programme “*National Workshop on Development of Teacher’s e--*” organized by Guru Angad Dev Teaching Learning Centre (GAD-TLC), SGTB Khalsa College, a center of MHRD under PMMMNMTT on **27th April 2020**

<ul style="list-style-type: none"> • Attended a National Webinar on “<i>ICT Enabled Higher Education in India: Challenges and Opportunities</i>” organized by Guru Angad Dev Teaching Learning Centre (GAD-TLC), SGTB Khalsa College, a center of MHRD under PMMMNMTT on 13th April 2020 • Participated in the Webinar on '<i>Molecular Visualisation Series I</i>' on Learning Chemistry through ODYSSEY Software organized by the Department of Chemistry, Hindu College in collaboration with Wavefunction Inc., USA and Neotel System and Services on 6th April 2020.
<p>Awards & Distinctions</p> <ul style="list-style-type: none"> • Won the Best Oral Paper Presentation award at National Conference on Relationship between Chemical Sciences and Society RCSS-2020 16th - 17th January 2020, Shivaji College, University of Delhi • Qualified UGC- JRF (NET), December 2008. • Qualified GATE 2009 with 89.88 Percentile. • Awarded Smt. Shakuntala Chadha Memorial prize for securing highest marks in B.Sc. (H) Chemistry I & II year in Daulat Ram College in the year 2005-2006. • Received all meritorious awards for securing first position in three consecutive years in B.Sc. (H) Chemistry from Daulat Ram College. • Won meritorious awards from Hans Raj College in M.Sc. (Previous) and M.Sc. (Final) for standing first in the college in University examinations in 2008 & 2009.
<p>Public Service/ University Service/ Consulting Activity/Content development</p> <ul style="list-style-type: none"> • Developed two Teacher’s e-Kit (e-content in Four Quadrants Format) in Chemistry at GAD-TLC of MHRD under the PMMMNMTT scheme in June 2020 on the topics <ul style="list-style-type: none"> ○ Phase diagram for one component system ○ Buffers & its Applications • Contributed a lesson plan for undergraduate students on the topic "Electrochemistry: Use of Electrolysis to Reduce Global Carbon Emissions" published on TROP ICSU (Trans-disciplinary Research Oriented Pedagogy for Improving Climate Studies and Understanding) website in June 2020. TROP ICSU Project, a global climate change education project is supported by the International Science Council (ISC). Weblink: https://tropicsu.org/lesson-plan-electrochemistry/ • Contributed a lesson plan on the topic “Phase Diagrams and Phase Equilibria” published on TROP ICSU (Trans-disciplinary Research Oriented Pedagogy for Improving Climate Studies and Understanding) website in January 2019. TROP ICSU Project, a global climate change education project is supported by the International Science Council (ISC). • Participated as faculty in the ‘DU Pre-Entrance Training Program 2016’ organized by Institute of Life Long Learning (ILLL), University of Delhi in June & December 2016 to be able to make students understand certain important topics that can help them qualify entrance examinations. • Worked towards representing the Department of Chemistry, University of Delhi at “Antardhvani’2013-Awards of Good Practice”.
<p>Professional Societies Memberships</p> <ul style="list-style-type: none"> • Became a member of American Chemical Society (ACS member number is 31523534) on 16th February 2018 • Became a lifetime member of Indian Society of Analytical Scientists (ISAS)- Delhi Chapter (life membership No. LMT-2018 / 01) in February 2018.
<p>Projects (Major Grants / Collaborations)</p> <p>Nil</p>
<p>Other Details</p>

- Was one of the judge in an event '**Spark 2015**, An International Chemistry Symposium' organized by Delhi Public School, R. K. Puram on 24th November 2015
- Was one of the experts in the recruitment of Chemistry Teachers at G.D. Goenka public School, Karkardooma in Feb' 2014.



DATE: 31-01-2021