




## Shivaji College Faculty Details Proforma

Title	First Name	Last Name	Photograph
Dr.	Richa	Arora	
<b>Designation</b>	<b>Assistant Professor</b>		
<b>Address</b>			
<b>Office Phone No.</b>	011 2519 1458		
<b>Residence</b>			
<b>Mobile</b>			
<b>Email</b>	aroraricha007@gmail.com		
<b>Web-Page</b>			
<b>Educational Qualifications</b>			
<b>Degree</b>	<b>University/Institute</b>	<b>Year</b>	
<b>Ph.D.</b>	University of Delhi	2015	
<b>M.Phil./M.Tech.</b>			
<b>PG</b>	University of Delhi	2010	
<b>UG</b>	University of Delhi	2008	
<b>Any Other Qualification</b>			
<b>Career Profile</b>			
I have taught Physical Chemistry to B.Sc (H.) Chem. 3rd year students for 4 months (Jan'2013 to Apr'2013) as a 'Guest Faculty' in Daulat Ram College, University of Delhi, Delhi.			
Currently, working as an Assistant Professor (Ad-Hoc) of Physical Chemistry in the Department of Chemistry of Shivaji College, University of Delhi, Delhi (Jan'14 till date).			
<b>Administrative Assignments</b>			

<b>Areas of Interest/Specialisation</b>
<b>Physical Chemistry</b>
<b>Subjects Taught</b>
<b>Inorganic, Organic &amp; Physical Chemistry</b>
<b>Innovation Project/Research Projects (Major Grants/Research Collaboration)</b>
<b>Publications Profile (Research Papers/Books)</b>
<p>1. Has Contributed an article for book 'Samtulya - philosophical to existential equality' published by Women Development Cell, Shivaji College, University of Delhi. ISBN: 9788193 993002</p> <p>2. Co-authored a lesson plan titled 'Phase Diagrams and Phase Equilibria' published on the TROP ICSU website (2019). The TROP ICSU Project, a global climate change education project supported by the International Science Council (ISC).</p> <p>3. Upasana Issar, Richa Arora, Tripti Kumari &amp; Rita Kakkar (2019) Combined pharmacophore-guided 3D-QSAR, molecular docking, and virtual screening on bis-benzimidazoles and ter-benzimidazoles as DNA-topoisomerase I poisons. Structural Chemistry 1-17. (Impact factor: 2.019)</p> <p>4. Richa Arora, Upasana Issar &amp; Rita Kakkar (2018) Identification of novel urease inhibitors: pharmacophore modeling, virtual screening and molecular docking studies. Journal of Biomolecular Structure &amp; Dynamics 1-15. (Impact factor: 3.107)</p> <p>5. Co-authored a chapter (Breaking the Stereotypes) in the book THE CHANGE MAKERS (2017) pp. 38-43, published by Pinnacle Learning, Delhi with ISBN: 978-93-83848-43-0.</p>

6. Co-authored a chapter (Recasting Nancy Drew) in the book **THE CHANGE MAKERS** (2017) pp. 84-89, published by Pinnacle Learning, Delhi with ISBN: 978-93-83848-43-0.
7. Richa Arora, Upasana Issar & Rita Kakkar (2018) Theoretical investigation of organotin(IV) complexes of substituted benzohydroxamic acids. *Computational & Theoretical Chemistry* 1138: 57-65. (Impact factor: 1.443)
8. 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* 83: 64-73. (Impact factor: 1.754)
9. Upasana Issar, Tripti Kumari, Richa Arora & Rita Kakkar (2017) Conformational properties of DNA minor groove binder Hoechst 33258 in gas phase and in aqueous solution. *Computational & Theoretical Chemistry* 1113: 32-41. (Impact factor: 1.549)
10. Richa Arora, Upasana Issar & Rita Kakkar (2017) Theoretical Study of the Molecular Structure and Intramolecular Proton Transfer in Benzohydroxamic Acid. *Computational & Theoretical Chemistry* 1105: 18-26. (Impact factor: 1.549)
11. Authored a chapter (Khaas: Nurturing Special Talent) in the book **UDAYAN-A New Beginning** (2017), published by Royal press, New Delhi-110003 with ISBN: 978-81-86845-22-4.
12. Rita Kakkar, Richa Arora, Pragya Gahlot & Deepti Gupta (2014) An Insight into Pyruvate Dehydrogenase Kinase (PDHK) Inhibition through Pharmacophore Modeling and QSAR Studies *Journal of Computational Science* 5: 558-567. (Impact factor: 1.748)
13. Tripti Kumari, Richa Arora & Rita Kakkar (2013) Peptide Deformylase Inhibitors for Addressing the Issue of Bacterial Resistance *International Review of Biophysical Chemistry (IREBIC)* 4: 19-48. (Global Impact factor: 0.675)
14. Richa Arora & Rita Kakkar (2012) Benzohydroxamic Acid and its Applications: A Review *International Review of Biophysical Chemistry (IREBIC)* 3: 212-233. (Global Impact factor: 0.675)

#### **Conference/Seminar/Faculty Development Programme/Workshop**

1. Participated and represented Department of Chemistry, University of Delhi in cultural fest "Antardhvani-2013" organized by University of Delhi, Delhi, India.
2. Participated in the conference on "Recent Advances in Computational Drug Design" held at J N Tata Auditorium, Indian Institute of Science Campus, Bangalore on 16th Sep - 17th Sep 2013.
3. Participated as a Resource Person and attended the workshop on "Electronic Structure, Atomistic and Statistical Modeling in Chemistry, Materials and Life Sciences", organized by Department of Chemistry, University of Delhi, Royal Society of Chemistry London (North India Section) and Schrödinger GmbH, Bangalore during October 8-10, 2014.
4. Participated as a Resource Person in Inspire Science Camp, Shivaji College, organized by DST, Govt. of India held during 19th-23rd December, 2015.
5. Participated in National Seminar on 'Water and Air Quality in Urban Ecosystem' organized by Eco Club Shivaji College on 22nd March, 2016.
6. Participated as a Resource Person in "Lab Skill Training Workshop" for Laboratory Staff from Chemistry & Life sciences Department held from 31st May to 3rd June, 2016, organized by Shivaji College, University of Delhi.

7. Participated in “Sharing Science Rising together”, an interdisciplinary workshop for science faculty organized by Shivaji College on 24th September and 1st October, 2016.
8. Participated as a Resource Person in Inspire Science Camp, Shivaji College, organized by DST, Govt. of India held during 14th-18th Dec., 2016.
9. College Co-ordinator of CONTECH-2016 (Concept Test in Chemistry) held on 24th September, 2016 for the B.Sc (H) Chemistry students of Shivaji College, organized by ACT, c/o Homi Bhabha Centre for Science Education, Mumbai.
10. Participated as Faculty in the DU Pre-Net Winter School 2016-2017 organized by Institute of Life Long learning, University of Delhi.
11. Participated as a Resource Person in “Lab Skill Training Workshop” for Laboratory Staff from Chemistry & Life sciences Department held from 10th July to 14th July, 2017, organized by Shivaji College, University of Delhi.
12. College Co-ordinator of CONTECH-2018 (Concept Test in Chemistry) held on 30th January 2018 organized by ACT, c/o Homi Bhabha Centre for Science Education, Mumbai for the students of B.Sc (H) Chemistry of Shivaji College.
13. Participated as a Resource person in a Workshop on “Molecular Modelling” organized by ARSD College, University of Delhi on 23rd January 2018.
14. Participated in a Workshop on “Computational Chemistry and Molecular Modelling” organized by Guru Angad Dev Teaching Learning Centre of MHRD, SGTB Khalsa College, University of Delhi on 23rd March, 2018.
15. Participated as a Resource Person in Inspire Science Camp, Shivaji College, organized by DST, Govt. of India held during 16th -20th July, 2018.
16. Participated in Faculty Development Program cum Workshop on “Climate Across The Curriculum: Resources For Integrating Climate Topics In Discipline-Specific Teaching” of the TROP ICSU project on 13th and 14th October 2018 at Sri Venkateswara College (University of Delhi). The workshop is part of a Climate Education Project of the International Science Council.
17. College Co-ordinator of CONTECH-2018 (Concept Test in Chemistry) held on 2nd February 2019 organized by ACT, c/o Homi Bhabha Centre for Science Education, Mumbai for the students of B.Sc (H) Chemistry of Shivaji College.
18. Participated in the Symposium on “Empowering Women in Chemistry: A Global Networking Event” held at Miranda House, University of Delhi on 12th February 2019.
19. Presented a poster on “Theoretical Study on Tautomers and Conformers of Benzohydroxamic Acid” in National Seminar on Recent Trends in Chemistry, 2012 organized by Sri Venkateswara College, University of Delhi, India.
20. Presented a poster on “Theoretical study of Benzohydroxamic Acid and its Metal ion Complexes” in the workshop on “Introduction to Gaussian: Theory and Practice” organized by Gaussian, Inc. in December 2012 in Delhi, India.
21. Presented a poster on “In Silico Study of Active Site of Helicobacter pylori Urease and its Inhibition by Hydroxamic Acid and its Analogues” in the conference on “Recent Advances in Computational Drug Design” held at J N Tata Auditorium, Indian Institute of Science Campus, Bangalore on 16th Sep – 17th Sep 2013.
22. Presented a poster on “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 held in Mauritius, from 2nd to 6th July 2018.

23. Gave an oral presentation on “Pharmacophore modeling, 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 held in Mauritius, from 2nd to 6th July 2018.

24. Presented a paper on “In Silico Study of the Active Site of Helicobacter pylori Urease and its Inhibition by Hydroxamic Acids” in the Virtual Conference on Computational Science held from 1st – 31st August, 2018, organized by University of Mauritius, Mauritius.

25. Presented a poster on “In Silico Study of the Active Site of Helicobacter pylori Urease and its Inhibition by Hydroxamic Acids” in the National conference on "Emerging Trends and Advances in Chemical Sciences" (ETACS) hosted by Department of Chemistry, St. Stephen's College, Delhi University, on September 25-26, 2018.

#### Research Guidance (*Supervision of Doctoral Thesis/Dissertations*)

#### Awards and Distinctions

- Qualified CSIR JRF (NET), December 2009 with Rank 86.
- Qualified GATE, 2010.
- Awarded GOLD MEDAL for FIRST POSITION in University of Delhi, South Campus in 2010 M.Sc. Chemistry 2<sup>nd</sup> year.
- Awarded Certificate of Merit for FIRST POSITION in University of Delhi, South Campus in 2010 M.Sc. Chemistry 2<sup>nd</sup> year.
- Awarded Certificate of Merit for FIRST POSITION in UDSC in 2009 M.Sc. Chemistry 1<sup>st</sup> year.
- Awarded certificate for SECOND RANK in UDSC in 2008 B.Sc. (Honours) Chemistry 3<sup>rd</sup> year.
- Awarded MEDAL for SECOND POSITION in University Exam.-2006, South Campus, B.Sc. (Honours) Chemistry 1<sup>st</sup> year.

- Awarded **Certificate of Merit** by CBSE for being among the top 0.1% of successful candidates in Social Science (2003).
- Awarded **certificate of merit** under National Scholarships Scheme by CBSE in recognition of high position secured (2003).

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**Memberships**

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**Other Academic Activities**

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**Cultural/Extracurricular Activities**

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**Have been a member of Cultural Committee and Women Development Cell of Shivaji College since 2016.**

**Signature of Faculty Member**