




Shivaji College Faculty Details Proforma

| Title | First Name | Last Name | Photograph |
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| Dr. | Richa | Arora |  |
| Designation | Assistant Professor | | |
| Address | Department of Chemistry, Shivaji College, University of Delhi | | |
| Office Phone No. | 011 2519 1458 | | |
| Residence | | | |
| Mobile | | | |
| Email | richaarora@shivaji.du.ac.in | | |
| Web-Page | | | |
| Educational Qualifications | | | |
| Degree | University/Institute | Year | |
| Ph.D. | University of Delhi | 2015 | |
| M.Phil./M.Tech. | | | |
| PG | University of Delhi | 2010 | |
| UG | University of Delhi | 2008 | |
| Any Other Qualification | | | |
| Career Profile | | | |
| <p>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.</p> <p>Currently, working as an Assistant Professor in the Department of Chemistry, Shivaji College, University of Delhi, Delhi (from 02 January 2014 till date).</p> | | | |
| Administrative Assignments | | | |

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| Areas of Interest/Specialisation |
| Physical Chemistry, Computational Chemistry, Molecular Modeling, Computer-aided drug design |
| Subjects Taught |
| Inorganic, Organic & Physical Chemistry |
| Innovation Project/Research Projects (Major Grants/Research Collaboration) |
| Project Co-ordinator of the project titled "Effect of soil pH on germination of seeds and plant growth" under DBT Star College Scheme for the students of B.Sc (H) Chemistry, Botany and B.Sc (P) Life Science and B.Sc (P) Physical Science of Shivaji College, University of Delhi. (Completed) |
| Publications Profile (<i>Research Papers/Books</i>) |
| <ul style="list-style-type: none">• Ankit Mittal, Mudita Nagpal, Vinod Kumar Vashistha, Richa Arora & Upasana Issar (2023) Recent advances in the antioxidant activity of metal-curcumin complexes: A combined computational and experimental review. Free Radical Research 25:1-16. (Impact factor: 4.288) (e-ISSN: 1572-9001, print ISSN: 1040-0400). https://doi.org/10.1080/10715762.2023.2298857• Upasana Issar, Richa Arora, & Rita Kakkar (2023) In silico studies of the interaction of the minor groove binder Hoechst 33258 with B-DNA. Journal of Biomolecular Structure & Dynamics 10: 1-16. (Impact factor: 5.235) (e-ISSN: 1572-9001, print ISSN: 1040-0400). https://doi.org/10.1080/07391102.2023.2220807• Co-authored a chapter "Biomedical Application of Chitosan-Based Nanocomposites as Antifungal Agents" for book 'Chitosan-Based Nanocomposite Materials, Fabrication, Characterization and Biomedical Applications' published by Springer in 2022. ISBN-9789811953378, 9789811953408, eText ISBN: 9789811953385• Co-authored a chapter "Antiviral Potency of Chitosan, Its Derivatives, and Nanocomposites" for book 'Chitosan-Based Nanocomposite Materials, Fabrication, Characterization and Biomedical Applications' published by Springer in 2022. ISBN-9789811953378, 9789811953408, eText ISBN: 9789811953385 |

- Co-authored a chapter “Theoretical Study on Catalytic Capture and Fixation of Carbon Dioxide by Metal–Organic Frameworks (MOFs)” for book ‘Metal-Organic Frameworks (MOFs) as Catalysts’ published by Springer in 2022. Print ISBN: 9789811679582, 9811679584 · eText ISBN: 9789811679599, 9811679592
- Co-authored a chapter “Computational Approach Toward Identification and Catalytic Degradation of Chemical Warfare Agents Using MOFs” for book ‘Metal-Organic Frameworks (MOFs) as Catalysts’ published by Springer in 2022. Print ISBN: 9789811679582, 9811679584 · eText ISBN: 9789811679599, 9811679592
- Co-authored a chapter “Functionalized Carbon Nanomaterials (FCNMs): A Green and Sustainable Vision” for book ‘Environmental Applications of Carbon Nanomaterials-Based Devices’ published by Wiley-VCH in 2021. ISBN: 9783527348657 3527348654.
- Effect of Soil pH on Germination and Growth of *Triticum aestivum* and *Zea mays*. Conference Proceedings of Virtual Conference on Chemistry and its Applications P-173. ISBN: 978-999-99949-783-0
- Developed Teacher’s e-Kit on “Buffer & its Applications” for Guru Angad Dev Teaching learning Centre SGTB Khalsa College, University of Delhi, Delhi, India under Pandit Madan Mohan Malviya National Museum on Teachers and Teaching (PMMMNMTT) scheme of MHRD (2020). (https://drive.google.com/file/d/1WqksrIx_SwOuW041H7RTGSnnUUaYWV_F/view?usp=sharing)
- Developed Teacher’s e-Kit on “Phase Diagram for one-component System” for Guru Angad Dev Teaching learning Centre SGTB Khalsa College, University of Delhi, Delhi, India under Pandit Madan Mohan Malviya National Museum on Teachers and Teaching (PMMMNMTT) scheme of MHRD (2020). (<https://drive.google.com/file/d/15k1YoNxou1SF1-n7-54M8mIsBP7S1fj3/view?usp=sharing>)
- Co-authored a lesson plan titled ‘Electrochemistry: Use of Electrolysis to Reduce Global Carbon Emissions’ published on the TROP ICSU website (<https://tropicsu.org/lesson-plan-electrochemistry/>) in 2020. The TROP ICSU Project, a global climate change education project supported by the International Science Council (ISC).
- Co-authored an article for book ‘Samtulya’ published by Women Development Cell, Shivaji College, University of Delhi, 2019, ISBN 9788193993002.
- 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).
- Richa Arora, Upasana Issar & Rita Kakkar (2019) In silico studies of interaction of hoechst 33258 within minor groove of B-DNA. Book of Abstracts. Albany 2019: The 20th Conversation, Journal of Biomolecular Structure and Dynamics 37: 29. DOI: 10.1080/07391102.2019.1604468
- Upasana Issar, Richa Arora & Rita Kakkar (2019) In silico studies of interaction of hoechst 33258 within minor groove of B-DNA. Book of Abstracts. Albany 2019: The 20th Conversation, Journal of Biomolecular Structure and Dynamics 37: 33. DOI: 10.1080/07391102.2019.1604468
- Upasana Issar, Richa Arora, Tripti Kumari & 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 30: 1185–1201. (Impact factor: 1.887) (e-ISSN: 1572-9001, print ISSN: 1040-0400). <https://doi.org/10.1007/s11224-018-1257-3>
- Richa Arora, Upasana Issar & Rita Kakkar (2018) Identification of novel urease inhibitors: pharmacophore modeling, virtual screening and molecular docking studies. Journal of

Biomolecular Structure & Dynamics 37: 4312-4326. (Impact factor: 5.235) (ISSN: 07391102, 15380254). <https://doi.org/10.1080/07391102.2018.1546620>

- **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: 1.926) (ISSN: 2210-271X). <https://doi.org/10.1016/j.comptc.2018.06.005>**
- **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: 2.518) (ISSN: 1093-3263). <https://doi.org/10.1016/j.jmgm.2018.04.018>**
- **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.**
- **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: 1.926) (ISSN: 2210-271X). <https://doi.org/10.1016/j.comptc.2017.05.006>**
- **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: 1.926) (ISSN: 2210-271X). <https://doi.org/10.1016/j.comptc.2017.02.014>**
- **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: 3.976) (ISSN: 1877-7503). <https://doi.org/10.1016/j.jocs.2014.04.006>**
- **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) (ISSN: 2038-0321, eISSN: 2533-1671)**
- **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) (ISSN: 2038-0321, eISSN: 2533-1671)**

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

NA

Awards and Distinctions

- Awarded “Louis Pasteur Teaching Excellence Award 2022” in Chemistry by IMRF Executive Council & Excellence Awards Committee of International Multidisciplinary Research Foundation on January 26, 2022.
- Awarded “Dr. Sarvepalli Radhakrishnan Best Faculty and Researcher Award 2022” in Chemistry by IMRF Executive Council & Excellence Awards Committee of International Multidisciplinary Research Foundation on September 05, 2022.
- Qualified CSIR JRF (NET), December 2009 with Rank 86.
- Qualified GATE, 2010.
- Awarded GOLD MEDAL for FIRST POSITION in University of Delhi, Delhi, India, South Campus in 2010 M.Sc. Chemistry 2nd year.
- Awarded Certificate of Merit for FIRST POSITION in University of Delhi, Delhi, India, South Campus in 2010 M.Sc. Chemistry 2nd year.
- Awarded Certificate of Merit for FIRST POSITION in UDSC in 2009 M.Sc. Chemistry 1st year.
- Awarded certificate for SECOND RANK in UDSC in 2008 B.Sc. (Honours) Chemistry 3rd year.
- Awarded MEDAL for SECOND POSITION in University Exam.-2006, South Campus, B.Sc. (Honours) Chemistry 1st 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).
- Received “Best oral presentation award” in National Conference on Relationship between Chemical Sciences and Society (RCSS-2020) organized by the Department of Chemistry, Shivaji College, University of Delhi, Delhi, India held from 16th – 17th January 2020.

Memberships

- Annual Member of the “International Multidisciplinary Research Foundation”, IMRF Institute of Higher Education & Research, India.

Other Academic Activities

- Presented a poster on “Theoretical Study on Tautomers and Conformers of Benzohydroxamic Acid” in National Seminar on Recent Trends in Chemistry, organized by Sri Venkateswara College, University of Delhi, Delhi, India from 20th -22nd March, 2012.
- 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 17th -21st December 2012 in Delhi, India.
- 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, India on 16th Sep – 17th Sep 2013.
- 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.
- 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.
- 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.
- 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, University of Delhi, Delhi, India on 25th – 26th September, 2018.
- Presented a short lecture and poster on “Identification of novel urease inhibitors: Pharmacophore modeling, virtual screening and molecular docking studies” at Albany 2019: The 20th Conversation organized by State University of New York (SUNY), Albany, USA held from 11th to 15th June, 2019.
- Presented a poster on “Identification of novel urease inhibitors: Pharmacophore modeling, virtual screening and molecular docking studies” in the Young Scientists’ Conference on the theme “Frontier Areas of Research” as a part of “India International Science Festival – 2019” held at Biswa Bangla Convention Centre, Kolkata, India during 5th – 8th November, 2019.
- Presented a poster on “Effect of soil pH on germination and growth of Triticum aestivum and Zea mays” in the 2nd National Conference on Emerging Trends and Future Challenges in Chemical Sciences-2020 (ETFC-2020) to be held from 10th -11th January 2020 in Conference Centre, University of Delhi, Delhi, India, organized by Kirori Mal College, University of Delhi, Delhi, India.
- Gave an oral presentation on “Identification of novel urease inhibitors: Pharmacophore modeling, virtual screening and molecular docking studies” in the 2nd National Conference

on Emerging Trends and Future Challenges in Chemical Sciences-2020 (ETFC-2020) held from 10th -11th January 2020 in Conference Centre, University of Delhi, Delhi, India, organized by Kirori Mal College, University of Delhi, Delhi, India.

- Presented a poster on “Effect of soil pH on germination and growth of *Triticum aestivum*” in the National Conference on Relationship between Chemical Sciences and Society (RCSS-2020) organized by the Department of Chemistry, Shivaji College, University of Delhi, Delhi, India held from 16th – 17th January 2020.
- Presented a poster on “Effect of soil pH on germination and growth of *Zea mays*” in the National Conference on Relationship between Chemical Sciences and Society (RCSS-2020) organized by the Department of Chemistry, Shivaji College, University of Delhi, Delhi, India held from 16th – 17th January 2020.
- Gave an oral presentation on the title “Effect of soil pH on germination and growth of *Triticum aestivum* and *Zea mays*” in the International Interdisciplinary Virtual Conference on “DRUG DISEASE AND DEVELOPMENT” jointly organized by Department of Chemistry and IQAC Mungasaji Maharaj Mahaviyalaya, Darwaha, India on 9th - 10th December, 2020.
- Gave an oral presentation on the topic “Effect of soil pH on germination and growth of *Triticum aestivum* and *Zea mays*” under the theme “Frontiers Area of Research-Chemical Sciences” in the Young Scientists’ Conference organized on December 22-24, 2020 as a part of India International Science Festival-2020 by the Ministry of Science and Technology, Ministry of Earth Sciences and Ministry of Health and Family Welfare, Govt. of India in collaboration with Vijnana Bharti (VIBHA).
- Gave an oral presentation on the title “Effect of soil pH on germination and growth of *Triticum aestivum* and *Zea mays*” in the International e-Conference on “Chemistry for Society, Industry and Technology” organized by Department of Chemistry, Gramin (Arts, Commerce & Science) Mahavidyalaya, Vasantnagar, Mukhed, India on 20th – 21st January, 2021.
- Gave an oral presentation on the topic “Effect of soil pH on germination and growth of *Triticum aestivum* and *Zea mays*” in the international Conference on “Rethinking Science for Sustainable Development (RSSD 2021)” organized by Department of Chemistry, Rajdhani College, University of Delhi on April 20-21, 2021.
- Gave an oral presentation on the topic “Effect of soil pH on germination and growth of *Triticum aestivum* and *Zea mays*” in the international Conference on “Virtual International Conference on Innovation and Modernisation in Commerce, Science, Technology, Business Management, Leadership And Entrepreneurship (ICIMB&L)” jointly organized by G H Rasoni College of Commerce, Science & Technology, Nagpur & G H Rasoni School of Business Management, Madhavnagri, Nagpur in association with International Knowledge Partner IIC University of Technology, Cambodia & National Knowledge Partner ICT Academy, India on February 04-05, 2022.
- Participated in “Vidture Quiz Competition” on Water Chemistry conducted by Team Chemistry Learners (Online mode) held on 22nd April, 2020 and secured 100%.
- Participated and excelled in “COVID-19 Awareness Program” organized by IQAC, Department of Chemistry, Library and Info. Science & Microbiology, for spreading awareness about the modes of transmission and the chain of infection of COVID-19.
- Participated and successfully completed national level online competition on “ChemQuiz 2020” organized by IQAC and Department of Chemistry, SSR College of Arts, Commerce and Science, UT of Dadra and Nagar Haveli on 10th May, 2020 and secured 80%.
- Participated and secured 90% in the online “Chemistry Quiz on COVID-19” conducted in May, 2020 by the Department of Pharmaceutical Chemistry, ARIBAS, Gujarat.
- Participated and performed excellent in online “Covid-19 Pandemic General Awareness Quiz” organized by Department of Chemistry, New Arts, Commerce and science College, Ahmednagar held on 28th May, 2020.

- Co-Convenor of DBT (Department of Biotechnology, Govt. of India) sponsored Star College Scheme (Chemistry Department) of Shivaji College, University of Delhi, Delhi, India from 1st April 2019 till date.
- Convenor of the "Journal Club" of the Department of Chemistry, Shivaji College, University of Delhi, Delhi, India.
- Resource person in the workshop on "Electronic Structure, Atomistic and Statistical Modeling in Chemistry, Materials and Life Sciences", organized by Department of Chemistry, University of Delhi, Delhi, India, Royal Society of Chemistry London (North India Section) and Schrödinger GmbH, Bangalore, India during 8th – 10th October, 2014.
- Resource person in Inspire Science Camp, Shivaji College, organized by DST, Govt. of India held during 19th-23rd December, 2015.
- 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, India.
- Resource person in Inspire Science Camp, Shivaji College, organized by DST, Govt. of India held during 14th-18th Dec., 2016.
- 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, Delhi, India.
- 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, India for the students of B.Sc (H) Chemistry of Shivaji College.
- Resource person in a Workshop on "Molecular Modelling" organized by ARSD College, University of Delhi, Delhi, India on 23rd January 2018.
- Resource person in Inspire Science Camp, Shivaji College, organized by DST, Govt. of India held during 16th -20th July, 2018.
- 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, India for the students of B.Sc (H) Chemistry of Shivaji College.
- Resource person in Summer Training on the topic "Distillation, Solvent Extraction and Column Chromatography" organized by the Department of Chemistry Shivaji College, University of Delhi, Delhi, India from 11th to 17th July, 2019 under DBT Star College Scheme.
- Co-ordinator for Nav Bharat Nirman as part of "India International Science Festival – 2019" held at Biswa Bangla Convention Centre, Kolkata, India during 5th – 8th November, 2019.
- Resource person in the National Conference on Relationship between Chemical Sciences and Society (RCSS-2020) organized by the Department of Chemistry, Shivaji College, University of Delhi, Delhi, India held from 16th – 17th January 2020.
- Organizer of RASTANTRUM 2019 - The Annual Festival of Department of Chemistry organized by Department of Chemistry, Shivaji College, University of Delhi, Delhi, India on 21st October 2019.
- Organizer of "Vidyarthi Vigyan Manthan State Level Examination" held on 19th January, 2020 at Deshbandhu College, University of Delhi, Delhi, India.
- College Co-ordinator of ACT – CONTECH 2019 - 20 (Concept Test in Chemistry) held on 31st January 2020 organized by ACT, c/o Homi Bhabha Centre for Science Education, Mumbai, India for the students of B.Sc (H) & (P) students of Chemistry of Shivaji College.

- Organizer of National Conference on “Relationship between Chemical Sciences and Society (RCSS-2020)” organized by the Department of Chemistry, Shivaji College, University of Delhi, Delhi, India held from 16th - 17th January 2020.
- Co-Convenor and Resource person of the four-week online summer training program on “Virtual World of Chemistry”, organized by the Department of Chemistry, Shivaji college, University of Delhi, Delhi, India under the aegis of DBT sponsored star college scheme organized from 1st - 28th July, 2020.
- Co-Convenor of a Webinar on the topic “National Education Policy (NEP)-2020 for Quality Higher Education” by Professor A. K. Bakhshi, Vice Chancellor of PDM University, Bahadurgarh, Haryana, being organized by the Department of Chemistry, Shivaji college, University of Delhi, Delhi, India on 19th September, 2020.
- Organizer of a webinar entitled “Environmental challenges in front of society in current scenario and future strategies” by Dr. Sandeep Lal, Principal Scientist at Indian Agricultural Research Institute (IARI), being organized by the Department of Chemistry of Shivaji College, University of Delhi, Delhi, India on 9th October, 2020.
- Organizer of a webinar entitled “Webinar on the topic “Alzheimer’s Disease- Facts, Challenges & Opportunities” by Dr. Ram Singh, Associate Professor, Department of Applied Chemistry, Delhi Technological University, being organized by the Department of Chemistry of Shivaji College, University of Delhi, Delhi, India on 17th October, 2020.
- Organizer of a webinar entitled “The Contribution of DRDO in Prevention and Management of COVID-19 Pandemic” by Dr. Himanshu Ojha, Scientist E and Joint Director at INMAS DRDO, being organized by the Department of Chemistry of Shivaji College, University of Delhi, Delhi, India on 26th September, 2020.
- Co-Convenor of a Webinar on the topic “Correlation of Environmental Chemistry in National Education Policy” by Dr. Balaram Pani, Dean of Colleges, University of Delhi, Delhi, India & Principal at Bhaskaracharya College of Applied Sciences, University of Delhi, Delhi, India, being organized by the Department of Chemistry of Shivaji College, University of Delhi, Delhi, India on 27th September, 2020 under the DBT sponsored Star College Scheme of Shivaji College, University of Delhi, Delhi, India.
- Organizer of the Online Annual Fest “RASTANTRUM 2020” on the theme “Climate Changes 3.0: It’s Now or Never”, being organized by The Department of Chemistry, Shivaji College, University of Delhi, Delhi, India on 2nd November 2020.
- Resource person during the mentoring session for the Govt JDB Girls College, Kota, Rajasthan for applying to DBT Sponsored Star College Scheme held through virtual platform on February 05, 2021.
- Resource person during the mentoring session for the Jawaharlal Nehru College, Pasighat, East Siang district, Arunachal Pradesh for applying to DBT Sponsored Star College Scheme held through virtual platform on February 05, 2021.
- Co-Convenor and Resource person of Inter-College Laboratory Skill Training Programme, organized for Assistants/Attendants in the Chemical and Life Science Laboratories from 9th February to 12th February, 2021 under DBT sponsored Star College Scheme of Shivaji College, University of Delhi, Delhi, India.
- Resource person during the mentoring session for the Govt P. G. College, Ambala Cantt. for applying to DBT Sponsored Star College Scheme held through virtual platform on February 17, 2021.
- Co-Convenor and Resource person of five-day “Workshop for school teachers in biological and Chemical sciences”, organized by the Department of Biochemistry, Botany, Chemistry and Zoology of Shivaji College, University of Delhi, Delhi, India under the aegis of DBT sponsored star college scheme from 22nd - 26th March, 2021.
- Co-Convenor and Resource person of the Online Workshop on the topic “Riveting Story of Molecular Modeling” organized by the Department of Chemistry, Shivaji college, University of Delhi, Delhi, India

under the aegis of DBT sponsored star college scheme on 10th April, 2021.

- Organizer of VIRTUAL TOUR of “CSIR LABS” held on 21st April, 2021, being organized under DBT sponsored Star College Scheme of Shivaji College, University of Delhi, Delhi, India.
- Resource person for “Careers in STEM and scholarship schemes floated by DST and DBT” on May 29, 2021 for 9th and 11th standard students of Jawahar Navodaya Vidyalaya, Faridkot under Vigyan Jyoti Scheme.
- Resource person for online two-day Workshop on “Riveting Story of Molecular Modeling” for the professor and post graduate students on Zoom platform held on June 7-8, 2021 organized by the Department of Chemistry, C M Dubey P G College Bilaspur, affiliated from ABVV, Bilaspur.
- Co-Convenor and Resource person of the four-week online summer training program on “Virtual World of Chemistry 2.0”, organized by the Department of Chemistry, Shivaji college, University of Delhi, Delhi, India under the aegis of DBT sponsored star college scheme organized from June 15-July 12, 2021.
- Resource person for “Career Counselling” on June 23, 2021 for Senior wing students of Swiss Cottage School.
- Coordinator of VIRTUAL TOUR of Laboratories of Department of Applied Chemistry, Delhi Technological University on July 16, 2021.
- Co-Convenor and Resource person of Intra-College Laboratory Skill Training Programme was organized for Assistants/Attendants in the Chemical and Life Science Laboratories from August 11-17, 2021.
- Resource person and Member of the Organizing Committee of the four-day Capacity Building Programme on “Research Methodology” organized under the Vidya Vistar Scheme by Shivaji College from August 26-29, 2021.
- Co-Convenor of Video Making Competition on the theme “Re-create a Scientific Discovery” in the month of August, 2021.
- Resource person for online one day Workshop on “Hands on training on Applications of Computers in Chemistry” on Zoom platform held on August 21, September 04-05, 2021 organized by the Department of Chemistry, Ramjas College, University of Delhi.
- Co-Convenor of Webinar on “Chemistry: A Central Science of Nature” by Professor Ashok Kumar Prasad, Dean, Faculty of Sciences, Head, Department of Chemistry and IPR Chair of University of Delhi, held on August 28, 2021.
- Co-Convenor and Resource person of Inter-College Laboratory Skill Training Programme was organized for Assistants/Attendants in the Chemical and Life Science Laboratories from September 14-20, 2021.
- Member of the Organizing Committee of webinar on “Role of IQAC in Accreditation Framework of NAAC” organized under the Vidya Vistar Scheme by Shivaji College on September 21, 2021.
- Co-Convenor of Webinar on “Intellectual Property Rights: Drafting and filing of Patents in India” by Dr. Kumar Kartikey Yadav, Examiner of Patents and Design, Ministry of Commerce and Industry, Government of India, held on September 25, 2021.
- Co-Convenor of Debate Competition on the theme “Privatisation, Atma Nirbhar Bharat” on September 25, 2021.
- Member of organizing team of the webinar on “Challenges in Implementation of NEP-2020” organized under the Committee of Implementation of National Education Policy, Shivaji College on October 22, 2021.
- Co-Convenor of Online Presentation Competition on the theme “Which Virtual Tour is Better?” on October 29, 2021.

- Co-Convenor of Lecture series on “Good Laboratory Practices” & “Biomass waste management for healthy environment, resource conservation and tapping Bioenergy” by Dr. Navindu Gupta, Principal Scientist in Division of Environmental Sciences of ICAR-Indian Agricultural Research Institute, New Delhi, held on October 30, 2021.
- Member of the Organizing Committee of the cultural exchange programme “Celebrating Diversity” organized by the Centre for Promotion of Inclusivity and Vidya Vistar Scheme, Shivaji College on November 17, 2021.
- Co-Convenor of Podcast Competition on the theme “Science Behind Movies” in the month of November, 2021.
- Resource person during the mentoring session for the Govt Arts, Science and Commerce College, Lawan, Distt-Baloda Bazar-Bhatapara, Chhattisgarh for applying to DBT Sponsored Star College Scheme held through virtual platform on December 14, 2021.
- Coordinator of VIRTUAL TOUR of Synthetic Organic Chemistry/Medicinal Chemistry Lab of Prof. Rakesh Kumar, Department of Chemistry, University of Delhi on January 14, 2022.
- Co-Convenor of Workshop on “Career Opportunities in Chemistry and How to prepare for Competitive Exams & Interviews” by Ms. Jyoti Rathi, founder director of YouTube Channel J Chemistry, held on February 04, 2022.
- Member of the Organizing Committee of the Webinar on “Climate Changes and it’s Consequence: Responses and Solutions” organized by the Society for Practical Applications and Development of Economics (SPADE) and Vidya Vistar Scheme, Shivaji College in collaboration with Center for Environment and Economic Development (CEED), New Delhi held on February 14, 2022.
- Organiser of Annual Chemistry Fest “Rastantrum ‘22” on the theme “Role of Scientists and Scientific Moments: Pre- & Post-Independence” held on February 22, 2022.
- Co-Convenor of the Inter-College Summer Training Program on “Green Fabrication of Nanostructures and their Characterization” organized by Department of Chemistry, Shivaji College under the aegis of DBT Sponsored Star College Scheme from 15th June - 30th June 2023.
- Resource person during the mentoring session for the Govt College, Lawan, Chhattisgarh regarding DBT Sponsored Star College Scheme held through virtual platform on November 24, 2023.
- College Co-ordinator of CONTECH-2023-24 (Concept Test in Chemistry) held on 25th February, 2024 for the science students of Shivaji College, organized by ACT, c/o Homi Bhabha Centre for Science Education, Mumbai, India.
- Course Coordinator and Resource Person of Add-on course of Department of Chemistry on the topic “Understanding Chemistry using Software” from March-April 2024.

Cultural/Extracurricular Activities

Currently, a Member of following committees of the college:

Vidya Vistar Scheme

Star College Scheme (Co-Convenor)

Media Cell Committee

ICT support Committee

Has been a Member of following committees of the college:

Cultural Committee (2017, 2018, 2019)

Women Development Cell (2017, 2018, 2019)

SPACE Committee (2022, 2023)

Social Media Team (2022, 2023)

Implementation of NEP Committee (2021, 2022, 2023)

Vidya Vistar Scheme (2021, 2022, 2023, 2024)

Star College Scheme (Co-Convenor, 2019-till date)

Media Cell Committee (2024)

ICT support Committee (2024)

Signature of Faculty Member