#### Dr. RAVINDER KUMAR

**Official Address**: Department of Chemistry, Gurukula Kangri, (Deemed to be University) Haridwar-249404, U.K

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#### **EDUCATION**

Ph.D. in Chemistry, University of Delhi, Delhi, IndiaM.Sc in Inorganic Chemistry, University of Delhi, Delhi2009

# **Professional/Teaching Experience:**

- ➤ Assistant Professor, Department of Chemistry, Gurukula Kangri (Deemed to be University) Haridwar- Since Nov.2018
- > Assistant Professor, Ramjas College, University of Delhi, Delhi– Aug. 2016- Nov.2018)
- > Assistant Professor, Sri Venkateswara College, University of Delhi (July 2015-Aug.2016)
- Assistant Professor, Shivaji College, University of Delhi, Delhi (July 2014– May 2015)
- **Ph.D. Scholar,** Department of Chemistry, University of Delhi, Delhi (2010–2014)

#### **SUBJECTS TAUGHT**

Atomic Structure, Chemical Bonding, Chemistry of s and p-block Elements, Coordination Chemistry, Bioinorganic Chemistry, Water and soil samples analysis, Transitions Elements, d & f-Block, Volumetric and Gravimetric Analysis, Mixture analysis and Inorganic preparation etc.

#### RESEARCH INTEREST

Synthesis, Structural Characterization of Transition metal complexes, Catalysis, nanomaterials and their applications in water purification, pesticides removal, dyes degradation etc. and oxidation of organic moieties

### **PUBLICATIONS**

- B-doped SnO<sub>2</sub> nanoparticles: a new insight into the photocatalytic hydrogen generation by water splitting and degradation of dyes, S. Kumar, Bhawna, S. K. Yadav, A. Gupta, Ravinder Kumar, J. Ahmed, M. Chaudhary, Suhas, V. Kumar, Environ Sci Pollut Res Int. (Feb. 2022) 29, 47448–47461, ISSN: 1614-7499.
- 2. DFT and docking studies of designed conjugates of noscapines & repurposing drugs: promising inhibitors of main protease of SARS-CoV-2 and falcipan-2, A. Kumar, D. Kumar, Ravinder Kumar, P. Singh, R. Chandra, K. Kumari, *Journal of Biomolecular Structure and Dynamics* (April 2022), Vol. 40 (No. 6), 2600-2620, ISSN: 1538-0254
- 3. Assessment of the bioaccumulation pattern of Pd, Cd, Cr and Hg in edible fishes of East Kolkata Wetlands, India, J. Dutta, S. Zaman, T. K. Thakur, S. Kaushik, A. Mitra, P. Singh, Ravinder Kumar, A. T. K Zuan, M. S. Samdani, S. A. Alharbi, R. Datta, Saudi Journal of Biological Sciences, (Feb. 2022), Vol. 29(2), 758–766, ISSN: 1319-562X.
- **4.** Anticancer potential of N(4)substituted 5- nitroisatin thiosemicarbazones and their copper(ii) complexes., N. K. Singh, S. Shrestha, N. Shahi, **Ravinder Kumar** Choudhary, A. A Kumbhar, Y. R. Pokharel, P. N. Yadav, **Rasayan J. Chem.** (July 2021), 14 (3), 1600-1610, ISSN: 0976-0083
- 5. Enhancement of Anticancer Activity of N(4)1-(2-Pyridyl)piperazinyl 5-Nitroisatin Thiosemicarbazone on Chelation with Copper(II), N. K. Singh, S. Shrestha, N. Shahi, Ravinder Kumar Choudhary, A. Kumbhar, Y. R. Pokharel, P. N. Yadav, Asian Journal of Chemistry (Feb. 2021), Vol. 33, No. 3, 557-564, ISSN: 0975-427X
- 6. An Update on COVID-19: Role of Nanotechnology in Vaccine Development, Ritika Sharma, Akanksha Gupta, Ravinder Kumar, Prashant Singh, Vinod Kumar, SMC Bulletin (August 2020) Vol. 11 (No. 2), 88-96.
- 7. Facile Synthesis of N-Doped SnO<sub>2</sub> Nanoparticles: A Cocatalyst-Free Promising Photocatalyst for Hydrogen Generation. Bhawna, A. Gupta, P. Kumar, A. Tyagi, Ravinder Kumar, A. Kumar, P. Singh, R. P. Singh, V. Kumar, *ChemistrySelect*, (July 2020), 5(26), 7775–7782.

- **8.** COVID-19: Emergence of Infectious Diseases, Nanotechnology Aspects, Challenges, and Future Perspectives. A. Gupta, S. Kumar, **Ravinder Kumar**, A. K. Choudhary, K. Kumari, P. Singh, V. Kumar, *ChemistrySelect* (July 2020) 5, 7521–7533
- **9.** Dimeric copper(II) complex of a new schiff base ligand: Effect of morphology on the catalytic oxidation of aromatic alcohol. **Ravinder Kumar**, K. Mahiya, Pavan Mathur, *Dalton Transaction*, (2013) 42, 8553-8557. (Impact Factor: 4.177), ISSN: 1477-9226.
- Bis- benzimidazole diamide iron(III) complexes as mimics of phenoxazinone synthase.
   R. Bhakshi, Ravinder Kumar, Pavan Mathur, Catalysis Communication, (2012) 17, 140-145. (Impact Factor: 3.699), ISSN: 1566-7367.
- **11.** Aerobic Oxidation of 1,10-Phenanthroline to Phen-dione Catalyzed by Copper(II) Complexes of a Benzimidazolyl Schiff Base. **Ravinder Kumar**, Pavan Mathur, **RSC Advances**, (2014) 4 (63), 33190-33193. (Impact Factor: 3.289), ISSN: 2046-2069.
- 12. Oxidation of phenyl propyne catalyzed by Copper(II) complexes of a benzimidazolyl schiff base ligand: Effect of acid/base, Oxidant, Surfactant and Morphology. Ravinder Kumar, Pavan Mathur, Spectrochimica Chimica Acta Part A: Molecular and Biomolecular Spectroscopy. (2015) 136, 818-823. (Impact Factor: 2.098), ISSN: 1386-1425.
- **13.** Oxidation of substituted phenols using copper(II) metallatriangles formed through ligand sharing. K. Mahiya, **Ravinder Kumar**, F. Lloret, Pavan Mathur, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, (2014) 133, 663–668. (Impact Factor: 2.098), ISSN: 1386-1425.
- **14.** Copper(II) complexes with Box or Flower type Morphology: Sustainability versus Perishability upon catalytic recycling. **Ravinder Kumar**, A. Yadav, K. Mahiya, Pavan Mathur, *Inorganica Chimica Acta*, (2016), 450, 279-284. (Impact Factor: 2.046), ISSN: 0020-1693.
- **15.** Copper(II) Complexes of new tetra-dentate *bis*-benzimidazolyl Diamide Ligands: Synthesis, Structural and Oxidation of some pyridyl, napthyl and benzyl alcohols. N. Tyagi, **Ravinder Kumar**, K. Mahiya, Pavan Mathur, *Journal of Coordination Chemistry*, (2013) 66, 19, 3335-3348. (Impact Factor: 1.756), ISSN: 1029-0389.

- 16. Oxidation of olefins catalyzed by Iron (III) complexes of bis-benzimidazolyl diamide ligands. G. Ahuja, Ravinder Kumar, Pavan Mathur, *Journal of Molecular Structure*, (2012) 1011, 166-171. (Impact Factor: 1.602), ISSN: 0022-2860.
- 17. Oxidation of substituted benzyl amines using a phenoxo bridged dinuclear nickel(II) complex: Synthesis, Structure and catalytic activity
  - R. Kumar, **Ravinder Kumar**, K. Mahiya, Pavan Mathur, *Transition Metal Chemistry* (2015) 40 (2), 189-195. (Impact Factor: 1.465), ISSN: 0340-4285.
- **18.** Synthesis of diaryl disulfides, sulfides and aryl alkyl sulfides from isothiazolones, B. S. Bhakuni, **Ravinder Kumar**, P.S. Bhakuni, *Chemical Science Transactions* (2016) 5(2). (Real time impact Factor: 0.761), ISSN: 2278-3318.
- **19.** Review on synthesis and application of schiff base and its transition metal complexes. **Ravinder Kumar,** Ravikant, *Research Journal of Chemical and Environmental Sciences* (2014) 2(1). (Real time impact Factor: 0.564), ISSN: 2321-1040.
- **20.** Oxidation of substituted alkyne's catalyzed by a non-heme iron(III) Bis benzimidazole diamide complex as catalyst under ambient condition, R. Bhakshi, **Ravinder Kumar**, Pavan Mathur, *Indian journal of Chemistry Section-A*, (2011) Vol.50A, 658-663. (Impact Factor: 0.729), ISSN: 0975-0975.

## **Books/Book Chapter**

- ➤ Study on Enhancement of Anticancer Activity of N(4)1-(2-Pyridyl)piperazinyl 5-Nitroisatin Thiosemicarbazone on Chelation with Copper(II), N. K. Singh S. Shrestha N. S. Ravinder Kumar Choudhary A. A. Kumbhar Y. R. Pokharel P. Nath Yadav, Challenges and Advances in Chemical Science (April 2022) Vol. 9, chapter 5, 9, Page 40-55, <a href="https://doi.org/10.9734/bpi/cacs/v9/1762A">https://doi.org/10.9734/bpi/cacs/v9/1762A</a>, Print ISBN: 978-93-5547-364-6, eBook ISBN: 978-93-5547-372-1.
- ➤ "Practical Chemistry for Undergraduates" 2016, ISARA Publications, New Delhi

# **PUBLICATION PROFILE**

➤ Total Publication: 20

> Total impact factor: 39.294

> Total citation (as on July 2021): **136** 

 $\rightarrow$  h Index (as on July, 2021): **05** 

# **SKILL ACQUIRED**

- > Synthesis of various metal complexes and nanomaterials using several synthetic routes
- ➤ Familiar with UV-visible, FT- IR, NMR, EPR Spectroscopy, PXRD, SC-XRD, GC-MS, SEM etc.
- ➤ Experienced in Microsoft® Office (Excel, Power Point, Word, Office Picture Manager), Paint, Origin 8.0, Adobe Photoshop

### AWARDS AND HONORS

- > Teacher Innovation awards by Sri Aurobindo Society (2019)
- ➤ National Eligibility Test (NET), CSIR (2010)
- ➤ Junior research Fellow (JRF), UGC (2011-2013)
- Senior research Fellow (SRF), UGC (2013-2014)
- ➤ 1<sup>st</sup> Prize in Oral Presentation for young scientist at Advanced in Chemical and Environmental Sciences (ACES-2014)

### ACADEMIC EXPERIENCES AND ASSIGNMENTS

- > Supervision of M.Sc Project: Eight (2020-21)
- > Supervision of M.Sc Project: Six (2019-20)
- Served as the Reviewer/Referee for Journal of Nanoscience and Nanotechnology (American Scientific Publishers)
- ➤ Member of International Scientific advisory committee in "International Webinar on "Drug Discovery-2021 (IWDD-2021)" Organised by Department of chemistry, ARSD College, University of Delhi, Delhi on 20 July 2021
- ➤ Member of National Scientific advisory committee in "2st National Conference on Emerging trends & future challenges in chemical sciences (ETFC-2020)" organized by Department of Chemistry, Kirori Mal College, University of Delhi from 10-11th Jan 2020

- ➤ Invitation from CSTT, MHRD, Department of higher education to attend the seminar on "Applications of graph & network in computational studies bioinformatics, Engg. And its technical terminology" Organized by CSIS held in JNU from 12-14 March 2018.
- ➤ Invitation from CSTT, MHRD, Department of higher education to attend the seminar on "Recent Trends in Technical Terminology in Science" organized by Department of Chemistry, Sri Aurbindo College, University of Delhi, Delhi on 16-17<sup>th</sup> Feb. 2016.
- ➤ **Member of organizing body in** 1<sup>st</sup> National Conference on Emerging trends & future challenges in chemical sciences (ETFC-2016), Kirori Mal College, University of Delhi.
- > Served in the Question Paper Setting/Evaluation Committee for the various university and other national level examination.
- ➤ Appointed as External/Internal Examiner to conduct practical examination for B.Sc & M.Sc in various University & colleges.
- ➤ University Representative to conduct the under Graduate courses (SOL) examination in 2016.

#### ADMINISTRATIVE EXPERIENCES AND ASSIGNMENTS

- ➤ Convener: Product Development, Monitoring & Commercialization, R&D Cell, GK(DU) form June 2022
- ➤ **Member:** NEP 2022 for modification in B.Sc syllabus
- ➤ Member: NIRF Committee GK (DU) 2021-22
- Co-coordinator Internship: Institution's Innovation council (IIC), GK(DU) 2020-21, 2021-22
- ➤ **Member:** University Proctorial Board 2021-22
- Organizing Member: Research Methodology, Publication and Ethics (RMPE) workshop from 25-30 March 2022
- ➤ Member: Induction Program for Science Faculty students dated 22 Dec. 2021
- Convener: Chemistry Department Alumni committee 2020-21, 2021-22

- ➤ Member: Department Research Committee, GK(DU) from July 2019
- > IQAC (Department Representative): Department of Chemistry, GK(DU) from April 2022
- ➤ **IQAC Member**: Department of Chemistry, GK(DU) from Feb 2020
- ➤ **Member**: Academic Audit 2020-21
- ➤ **Member**: Audit Team, Science Faculty 2021-22
- ➤ Member: University Green Audit Committee-2019-20, 2020-21, 2021-22
- ➤ Member: M.Sc, B.Sc Admission Committee 2019-20, 2020-21, 2021-22
- ➤ Chairman: University Judo team selection Committee-Dec. 2021
- ➤ **Member**: University squash team selection committee-2020
- ➤ **Member**: University Athletics team selection committee-2019
- ➤ **Member:** University squash team selection committee-2019
- ➤ Member: Scholarship Committee for Gen/SC/ST for Uttar Pradesh state 2019
- ➤ Member: University Badminton team selection committee- Sept. 2019
- ➤ **Member**: Solar Cell Committee-2019
- ➤ Member: DSIR-DST Committee-2019
- ➤ Member: Water Coolers Committee-2019
- ➤ **Member**: Punya Bhumi Committee on Foundation Day Celebration-2019
- > NTA & CBT Observer in UGC-NET, NEET(UG), CTET-2019 & CTET-2021

  Examination

# **MEMBERSHIP** (04)

- ➤ Life Time Membership of "The Indian Science Congress Association, Kolkata (Membership No. L39555)
- ➤ Life Time Membership of "The Indian Science Congress Association: Haridwar Chapter" (Membership No. L0159)
- ➤ Life Time Membership of "Indian Society of Analytical Scientists: Delhi Chapter" (Membership No. LMT-2018/023)
- ➤ Life Time Membership of **United Professionals & Scholars for Action (UPSA).** (Membership No. UPSA/A1/19/224)

## FACULTY DEVELOPMENT PROGRAMME

- 1. **National Workshop** on Research Methodology, Publication and Ethics (RMPE-2022) organized by Department of physics & IQAC, GK (DU), Haridwar in collaboration with USERC from 25-30 March 2022
- Faculty Development Programme on "Geo-Spatial technology, Inclusive and Accessible
  Disaster Risk Reduction (DRR)" organized online by National Institute of Disaster
  Management, Govt. of India and Shyama Prasad Mukherji College for women from 0406 March, 2021.
- 3. *Refresher Course* in Chemistry for Higher Education Online from *SWAYAM ARPIT*, MHRD, Govt. of India-2020.
- 4. *Faculty Development Programme* on Energy Conservation & Renewable energy organized by School of Engineering and technology, IGNOU, New Delhi from 08-12 June, 2020.
- 5. *Faculty Development Programme* on Multidisciplinary approach towards Emerging trends in Science & Humanities (MASH-2020) organized by Ramachandra College of Engineering, Eluru from 01-05 June, 2020.

- 6. *Orientation Programme* from 01-24, August 2019 at the UGC-Human Resource Development Centre, Kumaun University, Nainital
- 7. Participated in QIP short term course on "Functional Materials: Recent Trends and Future Prospects" Organized by Department of Chemistry, Indian Institute of Technology, Roorkee (Uttarakhand) from 20-24, May 2019 (One Week).
- 8. Faculty Development Program (FDP) cum workshop on "Climate Across the Curriculum: Resources for Integrating Climate Topics in Discipline-Specific Teaching" Organized by IQAC, Sri Venkateswara College, University of Delhi in Collaboration with TROPICSU, a Climate Education Project funded by International Council for Science (ICSU) & IISER, Pune, India on 13-14<sup>th</sup> Oct. 2018.

# **SESSION CHAIR (03)**

- 1. Session chair in "1st International Conference on Advanced Developments in Chemistry and Allied Sciences-2021 (ADCAS-21)" organized by the Department of Chemistry, Deenbandhu Chhotu Ram University of Science and Technology, Murthal, Haryana, India held on 16-17th December, 2021.
- 2. Session chair in "Innovation in teaching in government school during COVID-19" organized online by GUHAR on 07<sup>th</sup> June 2020.
- 3. Session chair in "International Institute of Engineers and Researchers (IIER) Conference-Meetings" held in Zurich, Switzerland from 16-17th November 2019.
- 4. Session chair in seminar entitled "*Discussion: The level of education in Government Schools*" held in V.P.O Luhari, Bhagpat, Uttar Pradesh on 02<sup>nd</sup> October 2019.

### RESOURCE PERSON/INVITED SPEAKER (14)

- 1. Research person in "Faculty Enrichment Webinar for Chemistry teachers in higher Education" organized by National Resource Center for education on Feb 11, 2021 at NIEPA, New Delhi.
- 2. Research person in "Virtual workshop on collating chemistry resources for teachers in higher education" organized by National Resource Center for education on June 18-19, 2020 at NIEPA, New Delhi.
- 3. Research person in "Current Socio-Economic Challenges & Opportunities (COVID-19)" organized by GUHAR online on 3<sup>rd</sup> May 2020.

- 4. Research person and delivered a talk entitled "ICT: The Emerging learning technology during COVID-19" in National webinar on "Current Socio-Economic Challenges & Opportunities (COVID-19)" organized by GUHAR online on 16<sup>th</sup> May 2020.
- 5. Resource person and delivered an invited talk entitled "Bio-Mass Energy: its energy Everywhere" in National Conference on Replacement of petrochemicals by Bio-based chemicals for safe environment" organized by C.C.R (P.G) College, Muzaffarnagar (U.P) on 18th February 2020.
- 6. Resource person and delivered an invited talk entitled "Nature, Science and Daily Life" in "DST-Inspire Internship Science Camp, an initiative of DST, Govt. of India" organized by HNB Garhwal University, Srinagar (Uttarakhand) on 30th January 2020.
- 7. Research person and delivered a talk entitled "Smart Composite Materials for Environmental Sustainability" under "Nepal Physical Society" at Patan Multiple Campus, Patandhoka, Lalitpur (Science Building), Tribhuvan University, Kathmandu, Nepal" on 7<sup>th</sup> January 2020.
- 8. Research person and delivered a talk entitled "Complex Chemical pathway of copper(II) complexes" in "Central Department of Chemistry, Tribhuvan University, Kirtipur, Kathmandu, Nepal" on 8th January 2020.
- 9. Keynote speaker in "International Conference on Natural Science and Environment-2019 (ICNSE)" organized by the International Institute of Engineers and Researchers (IIER) held in Zurich, Switzerland from 16-17<sup>th</sup> November 2019.
- 10. Research person and delivered a talk entitled "Energy Storage Materials" in "Workshop on Conservation of Renewable energy sources for sustainable development" organized by Govt. P.G. College, New Tehri, Uttarakhand on 2<sup>nd</sup> December 2019.
- 11. Research person and delivered a talk entitled "Patents in Research" in "Workshop on Awareness on Intellectual Property Rights" organized by Govt. P.G. College, New Tehri, Uttarakhand on 03<sup>rd</sup> December 2019.
- 12. Resource person in "DST-Inspire Internship Science Camp, an initiative of DST, Govt. of India" organized by Indira Gandhi National Tribal University, Amarkantak, M.P on 6-10<sup>th</sup> July 2018.
- 13. Resource person in "*Delhi University Pre-Entrance Summer School-2018*" Organized by Institute of Lifelong Learning, University of Delhi from 01-16<sup>th</sup> June, 2018.

14. Resource person in "Workshop on Iodimetric Estimation of Arsenic in given water sample" organized by Department of Chemistry, Ramjas college, University of Delhi on 28<sup>th</sup> Nov. 2017.

## LIST OF ORAL/POSTER PRESENTATIONS (12)

- ➤ Oral presentation in "International Conference on advances in chemical sciences and nanocomposites" organized by the Zakir Husain Delhi College, University of Delhi & Indian Society of Analytical Scientists, (ISAS) Delhi Chapter on April 1-2, 2022.
- ➤ Oral Presentation in "Advanced Composite Materials for Environmental Sustainability" organized by the Department of Computer Science, Faculty of Technology, Gurukula Kangri Vishwavidyalaya, Haridwar. on July 30-31, 2020.
- ➤ Oral Presentation in "2<sup>nd</sup> National Conference on Emerging Trends and Future Challenges in Chemical Sciences (ETFC-2020)" organized by "Department of Chemistry, Kirori Mal College, University of Delhi, Delhi during 10-11 January 2020.
- ➤ Oral Presentation in "Indian Analytical Congress (IAC-2019)" organized by "Indian Society of Analytical Scientists: Delhi Chapter and FICCI at Amity University, Noida (Delhi –NCR) during 12-14 December 2019.
- ➤ Oral Presentation in "Technology for Environmental Sustainability, Socio-Economic Responsibility and Associated Entrepreneurial Opportunities of 21<sup>st</sup> Century" organized by Department of Chemistry, Sri Aurobindo College, University of Delhi, Delhi on 8-9th March 2019.
- ➤ Oral Presentation in *International conference on Advances in Analytical sciences* organized by ISAS-Delhi Chapter & CSIR IIP, Dehradun on 15-17 March 2018.
- ➤ Oral Presentation in *Recent Innovations in Chemical Science and environment technology* Organized by Department of Chemistry, Sri Aurobindo College, University of Delhi on 3-4th March 2017.
- ➤ Oral Presentation in *National Conference on Science & Technology for national Development* Organized by the Indian Science Congress Association: Haridwar Chapter and Department of Chemistry, Gurukula Kangri Vishwavidyalaya, Haridwar on 20-22 Nov. 2016.
- ➤ Oral Presentation in 1<sup>st</sup> National Conference on Emerging trends & future challenges in chemical sciences (ETFC-2016) Organized by Department of Chemistry, Kirori Mal College, University of Delhi on 03-04 Feb. 2016.

- ➤ Oral Presentation at *Advanced in Chemical and Environmental Sciences* Organized by Department of Chemistry, Arya P.G College, Panipat (Haryana) on 27-28 Feb. 2014.
- ➤ Certificate of Participation by *The Indian Science Congress Association for Developing Scientific Temper* on National Science Day, Arya P.G College, Panipat 2014.
- ➤ Paper presented at- *Modern Trends in Inorganic Chemistry- (MTIC-XV) Organized by Department of Chemistry IIT Roorkee* on 13-16 Dec. 2013.
- ➤ Paper presented at- 3<sup>rd</sup> Asian Conference on Coordination Chemistry (ACCC-3)

  Organized by IIT Kanpur and Delhi held in Indian Habitat Center on 17-21 Oct. 2011.

### LIST OF CONFERENCES/ WORKSHOPS ATTENDED

- ➤ National Workshop on Indian Contribution to Chemical Sciences (ICCS-2022), organised by Department of Chemistry, New Delhi on 6-7<sup>th</sup> May 2022.
- ➤ National Mathematics day on 22 Dec. 2021 at Vigyan Bhavan, New Delhi organised by Vigyan Prasar, DST, New Delhi
- ➤ International webinar on ChemSci2021: Leaders In The Field Symposium" organised by Royal Society of Chemistry on 14 Dec. 2021.
- ➤ International Webinar on "Drug Discovery-2021 (IWDD-2021)" Organised by Department of chemistry, ARSD College, University of Delhi, Delhi on 20 July 2021.
- National Webinar on "National Education Policy-NEP 2020: Opportunities, Challenges & Its Effective Implementation Organized by Faculty of Engineering & Technology, Gurukula Kangri (Samvishwavidyalaya), Haridwar on 29 April, 2021.
- ➤ International Seminar on "New Horizons in Chemical Sciences and Technology" organized by Department of chemistry, Ch. Chhotu Ram (P.G.) College Muzaffarnagar, U.P., India on September 29, 2020
- ➤ Faculty Development Programme national webinar on "e-Content Development Methodology: Four quadrant Model, OERS and Copyright issues" organised by Guru Angad Dev Teaching Learning centre SGTB Khalsa College, university of Delhi under the Pandit Madan Mohan Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on 15 May 2020.

- ➤ Faculty Development Programme national webinar on "Towards Excellence in Higher education in India in the 21<sup>st</sup> century: Challenges & opportunities" organised by Guru Angad Dev Teaching Learning centre SGTB Khalsa College, university of Delhi under the Pandit Madan Mohan Mission on Teachers and Teaching (PMMMNMTT) of MHRD held on 01 May 2020.
- ➤ International Webinar on "Chemistry from Nature to Mankind to Combat COVID-19 (CNMCC-19)" organized by SGRM PG college in collaboration with ACT and Shri Ramswaroop Memorial University from 5th -7<sup>th</sup> June, 2020.
- ➤ Webinar on "Materials Science, Technology & Society (MSTS-2020)" organised by SPS, JNU New Delhi on 08-09 May 2020.
- Webinar on "How to be a transformational Leader-Leadership principal for the next Millennium" organised by FMS, GKV on 28 May 2020.
- ➤ Attended the *ACS on Campus* organized by Department of Chemistry, University of Delhi on 5<sup>th</sup> Feb. 2018.
- ➤ National Seminar on Emerging Economics and Challenges to sustainability towards Developing Nation held at Sri Aurbindo College, University of Delhi on 29-30<sup>th</sup> March 2016.
- ➤ Workshop on X-Ray diffraction systems and related applications containing XRD basics, Experimental techniques and data analysis using Highscore plus software held at University of Delhi on 25-26<sup>th</sup> Sep. 2014.
- ➤ Training and awareness program on Intellectual property rights organized by FICCI, University of Delhi and Intellectual property INDIA at University of Delhi on 2<sup>nd</sup> Nov. 2014.
- ➤ Certificate of Attendance for How to write for and get published in scientific journal and publish Manuscripts, organized by Delhi University Library System on 23<sup>rd</sup> August 2012.
- ➤ Workshop on Information Literacy & Competency Organized by Delhi University library system, University of Delhi, Delhi on 14<sup>th</sup> March, 2011.
- ➤ National Seminar on "Role of Analytical Techniques in Biological and Environmental Sciences" Organized by Indian Society of Analytical Scientists (ISAS-DC) on 27-29 January 2011.

- ➤ Seminar on Nuclear Energy for National Development Organized by Bhabha Atomic Research Centre, Mumbai and University of Delhi, Delhi on 20<sup>th</sup> Oct. 2010.
- ➤ 13<sup>th</sup> ISCB International conference on Interplay of chemical and Biological sciences: Impact on Health and Environment in the Department of Chemistry, University of Delhi, Delhi, from 26<sup>th</sup> Feb.-1<sup>st</sup> March 2009.
- ➤ Indo-US Symposium on "Trends in Chemical Biology" Organized by the Department of Chemistry, University of Delhi, Delhi on 25<sup>th</sup> Feb. 2009.
- > Secured First Position in Science Quiz in *TECHNOVA* 08 at DCRUST, Murthal (Sonepat).
- ➤ Secured Third Position in Science Debate in *TECHNOVA 08* at DCRUST, Murthal (Sonepat).

Date: 07 July 2022 (Ravinder Kumar)