Faculty Details proforma for DU Web-site

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Title	**Dr.**	First Name	**Dhanraj T.**	Last Name	**Masram**	Photograph
Designation	Associate Professor					
Address	Department of Chemistry, University of Delhi, Delhi-110007					
Phone No Office	**+91-11-27666646**					
Residence	-					
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Web-Page	-					

Educational Qualifications

Degree	Institution	Year
Ph.D.	R.T.M. Nagpur University, Nagpur	**2008**
PG	Nagpur University, Nagpur	**2003**
UG	Nagpur University, Nagpur	**2000**

Career Profile

2020-till date	Associate Professor , Department of Chemistry University of Delhi.
2009- 2020	Assistant Professor , Department of Chemistry University of Delhi.
2004- 2009	Lecturer, Department of Chemistry, R.T.M. Nagpur University Nagpur.
May 2010-July2010	Researcher, School of Material Science, JAIST, Japan.

Administrative Assignments

- Member of the Board of Research Studies (Sciences), University of Delhi: April 2019-Till date.
- Member of CSIR Innovation Award for school children: July2021
- Member of Faculty of Science, University of Delhi: 24.10.19 to 27.08.2021
- Resident tutor, P.G. Men's Hostel, University of Delhi: 01/02/2018 to31/03/2021.
- Members to evaluate the syllabus of MSc (Chemistry), Department of Applied Chemistry, DTU, 8/2/2021.
- Observer for the Admission to the M.Phil. and Ph.D. Programme of CIE Department January 2021
- Member of Admission Committee for the Ph.D. Degree in the Department of Chemistry, University of Delhi for the academic session held on2016-2017, 14/03/2018,11- 12/10/2018.,12/03/2019, January 2021, 13-15 /12/ 2021
- Deputy Superintendent for M.Sc. Part I & II Semester II&IV Practical Examinations 2019(Winter)
- University appointed Observer for Sports Trial for UG courses-2019
- Member of Grievance Committee for purposes of admission to UG/PG/M.Phil/Ph.D. for the year 2018-2020.
- Deputy Superintendent for M.Sc. Part I & II Semester II&IV Theory Examinations 2017(Summer)
- Deputy Coordinator Centralized evaluation center for MSc Part I & II Semester I&III 2016& 2018 (Winter)
- Observer in visiting team for the examinations of three years degree course, CBCS & FYUP of University of Delhi. May/June 2016 and 2019.
- Jury Member DST Inspire October 6-8, 2014,December 6-7, 2015&December 10-11, 2016
- Member of the committee to interview for the Kishore Vaignanik Protsahan Yojana Programme (KVPY fellowship), Department of Science and Technology, Indian Institute of Science, Bangalore, Government of India. 2013- 2017.
- Convener Inorganic Chemistry for the academic year 2014-2016.
- Member of Department Research Committee, Department of Chemistry, University of Delhi. 2012-2014.
- Member (Subject Expert) in the internal assessment committee for JRF Centre for Fire, Explosive & Environmental safety Defense Research & Development Organization (DRDO), Ministry of Defense held on January 22th, 2013, January 16th, 2014 &January 27th, 2016

- Member of Committee of Courses for Under Graduate and Post Graduate including Honours Courses in Chemistry of Department of Chemistry University of Delhi. 2010-2012, 2015-2017& 2018-2020.
- Member of Research Advisory committee for the Ph.D. Student of the Department of Chemistry University of Delhi.

Areas of Interest / Specialization

Graphene and other nanomaterial based Biosensors for detection of environmentally harmful molecules and DNA of various disease causing microbes.

Polymers (Synthesis of material through ATRP for polymeric light emitting diodes, organic terpolymers, conducting and chelate polymers etc and their various studies)

Environmental Studies (Synthesis of resins for water treatment and Bioremediation of decontamination of toxic metals from waste water using modified biomaterials), Nanohybrids based environmental catalysis for waste water treatment.

Heterogeneous catalysis, Coordination Chemistry, Bioinorganic Chemistry

Subjects Taught

Ph.D.: Paper XIV: Chemistry of Polymers

M.Sc. Final Theory: Solid state chemistry, Homogenous and heterogeneous catalysis, Environmental Chemistry, Inorganic Chemistry (Special-I) Paper 301B- Inorganic reaction mechanism, Inorganic Chemistry: Paper 4101B, Paper 4102B

M.Sc. Final Practical: Instrumentation (2010-2012, 2014-till date)

M.Sc. Previous Theory: Metal carbonyls and nitrosyls, Chemistry of d-and f-block elements, Supra molecular and photo inorganic chemistry.

M.Sc. Previous Practical: 2009-2010, 2012-2014

Research Guidance

List against each head (If applicable)

Doctoral Thesis: Awarded -10; Submitted- 00; Registered: 02; Awarded M.Phil.: 02; Awarded M. Tech / B. Tech- 03

Publications Profile

List against each head(If applicable) (as Illustrated with examples)

1. *Research papers published in Refereed/Peer Reviewed Journals* ***[Last Five Years]***

Deval Sathiyashivan Shankar, Kiran Kumar Chakka, Bhaskaran Shankar , Sathiyendiran Malaichamy, **Dhanraj T. Masram**, "Perfect symmetrical cyclic aromatic trimer motif in tripodal molecule", RSC Advances 2017, 7, 17297-17300, DOI: 10.1039/C7RA01682D, ISSN • 2046-2069 Impact factor: 3.361

Deepshikha Painuly, **Dhanraj T. Masram**, María Eugenia Rabanal, I.M. Nagpure, "The effect of ethanol on structural, morphological and optical properties of Li(I) 8-hydroxy quinoline phosphor" Journal of Luminescence , Elsevier 192 ,1180-1190, December 2017,DOI: 10.1016/j.jlumin.2017.08.054, ISSN -0022-2313,Impact factor: 3.599

Navin Mogha,Saransh Gosain, **Dhanraj T. Masram**, "Lanthanum oxide nanoparticles immobilized reduced graphene oxide polymer brush nanohybrid for environmental vitiation of organic dyes", Arabian Journal of Chemistry, Elsevier,21st November 2017, https://doi.org/10.1016/j.arabjc.2017.11.008, ISSN 1878-5352, Impact factor: 5.165

D Painuly, NK Mogha, R Singhal, P Kandwal, **Dhanraj T. Masram**, ME Rabanal, IM Nagpure,"The modification in the photo–physical properties via transformation of synthetic dihydrated Znq 2 to anhydrous (Znq 2) 4 tetramer by sublimation process" Optical Materials, Elsevier 82, 175-189, August, 2018 https://doi.org/10.1016/j.optmat.2018.04.044 ISSN 0925-3467, Impact factor: 3.080

D Painuly, NK Mogha, **Dhanraj T. Masram**, R Singhal, RS Gedam, IM Nagpure, "Phase stability and transformation of the α to ε-phase of Alq 3 phosphor after thermal treatment and their photo-physical properties" Journal of Physics and Chemistry of Solids , Elsevier, Volume 121, Pages 396-408, October 2018, https://doi.org/10.1016/j.jpcs.2018.05.035 ISSN 0022-3697, Impact factor: 3.995

Navin Mogha, Vikrant Sahu, Raj Kishor Sharma, **Dhanraj T. Masram**, "Reduced graphene oxide nanoribbon immobilized Gold nanoparticles based electrochemical DNA biosensor for detection of Mycobacterium tuberculosis",

Journal of Materials Chemistry B, J. Mater. Chem. B, 2018, 6, 5181-5187,2018, DOI: 10.1039/C8TB01604F,ISSN 0022-3697, Impact factor: 6.331

Subodh, NK Mogha, K Chaudhary, G Kumar, **Dhanraj T. Masram**, "Fur-Imine-Functionalized Graphene Oxide-Immobilized Copper Oxide Nanoparticle Catalyst for the Synthesis of Xanthene Derivatives", ACS Omega 3 (11), 16377-16385,2018, ISSN 0022-3697,Impact factor: 3.512

Manish Kumar, **Dhanraj T. Masram**, "Evaluation of DNA, BSA, and HSA binding propensity of copper (II) complex with N-donor ligand 2, 2′-dipyridylamine", Polyhedron 157, 511-520, 2019. ISSN-0277-5387 Impact factor: 3.052

Manish Kumar, Gyanendra Kumar, Navin Kumar Mogha, Ritu Jain, Firasat Hussain, **Dhanraj T Masram** , "Structure, DNA/proteins binding, docking and cytotoxicity studies of copper (II) complexes with the first quinolone drug nalidixic acid and 2, 2′ dipyridylamine" Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Elsevier, vol. 212, 94-104, 05/04/2019, ISSN: 1386-1425 Impact factor: 4.098

Kiran Kumar Chakka, Deval Sathiyashivan Shankar, **Dhanraj T. Masram**, K. V. Jovan Jose, Sathiyendiran Malaichamy, "Experimental and theoretical investigation of intramolecular cooperativity in cyclic benzene trimer motif", RSC Advances2019, 9, 753-760.

Manish Kumar, Navin Kumar Mogha, Gyanendra Kumar, Firasat Hussain, **Dhanraj T Masram** , Biological evaluation of copper (II) complex with nalidixic acid and 2, 2'-bipyridine (bpy), Inorganica Chimica Acta, 2019,490, 144-154,https://doi.org/10.1016/j.ica.2019.03.011, ISSN: 0020-1693 Impact factor: 2.545

Gyanendra Kumar, Arun Kant, Manish Kumar, **Dhanraj T Masram** , Synthesis, characterizations and kinetic study of metal organic framework nanocomposite excipient used as extended release delivery vehicle for an Antibiotic drug, Inorganica Chimica Acta, 2019, 496, 119036.

Manish Kumar, Navin Kumar Mogha, Gyanendra Kumar, K M Dadure, **Dhanraj T Masram**, Copper(II) complexes based on levofloxacin and 2N-donor ligands: synthesis, crystal structures and in vitro biological evaluation, New Journal of Chemistry 2019, 43, 15462 - 15481.

Subodh, K. Chaudhary, K. Prakash, **Dhanraj T Masram**, TiO2 nanoparticles immobilized organo-reduced graphene oxide hybrid nanoreactor for catalytic applications, Applied Surface Science, Elsevier, DOI:10.1016/j.apsusc.2019.144902.

K. Chaudhary, Subodh, K. Prakash, Navin Kumar Mogha, **Dhanraj T Masram**, Fruit waste (Pulp) decorated CuO NFs as promising platform for enhanced catalytic response and its peroxidase mimics evaluation, Arabian Journal of Chemistry, Elsevier, October 2019, Arabian Journal of Chemistry, DOI: 10.1016/j.arabjc.2019.09.007.

Subodh, Kunal Prakash and **Dhanraj T. Masram** , Reversible chromogenic covalent organic polymer for gas sensing applications, Dalton Trans., 2020, 49, 4, 28,1007-1010

Gyanendra Kumar, Manish Kumar, Navin Kumar Mogha Subodh, and **Dhanraj T Masram**, NiO nanocomposites/rGO as heterogeneous catalysis for imidazole scaffolds with their applications in inhibiting DNA binding activity, Dalton Transactions, 2020, 49, 1963-1974

K. Chaudhary, M. Trivedi, **Dhanraj T Masram**, Abhinav, Rath, "A highly active copper catalyst for the hydrogenation of Carbon Dioxide to formate under ambient conditions", Dalton Trans., 2020,DOI: 10.1039/C9DT04788C

Subodh, Kunal Prakash, K. Chaudhary and **Dhanraj T. Masram**, A new triazine based covalent organic polymer for catalytic applications, Applied Catalysis A: General, Elsevier.

K Chaudhary, K Kumar, P Venkatesu, **Dhanraj T Masram**, In-depth understanding of a nano-bio interface between lysozyme and Au NP-immobilized N-doped reduced graphene oxide 2-D scaffolds Nanoscale Advances 2 (5), 2146-2159

Subodh, K Prakash, **Dhanraj T. Masram**, Chromogenic covalent organic polymer-based microspheres as solid-state gas sensor Journal of Materials Chemistry C 20208 (27), 9201–9204.

K Chaudhary, NK Mogha, S Lalwani, RK Sharma, **Dhanraj T. Masram** Ruthenium oxide nanoparticles immobilized over Citrus limetta waste derived carbon material for electrochemical detection of hexestrol Journal of Materials Chemistry B, 2020,8 (35), 7956-7965.

Subodh, K Prakash, **Dhanraj T Masram** Silver Nanoparticles Immobilized Covalent Organic Microspheres for Hydrogenation of Nitroaromatics with Intriguing Catalytic Activity ACS Applied Polymer Materials,2021

K Chaudhary, K Bhakuni, NK Mogha, P Venkatesu, **Dhanraj T. Masram** Sustainable Solvothermal Conversion of Waste Biomass to Functional Carbon Material: Extending Its Utility as a Biocompatible Cosolvent for Lysozyme ACS Biomaterials Science & Engineering 6 (9), 4881-4892, 2021.

K Chaudhary, K Kumar, P Venkatesu, **Dhanraj T. Masram**, Protein immobilization on graphene oxide or reduced graphene oxide surface and their applications: Influence over activity, structural and thermal stability of protein, Advances in Colloid and Interface Science, 102367, 2021.

G Kumar, NK Mogha, **Dhanraj T. Masram**, Zr-Based Metal–Organic Framework/Reduced Graphene Oxide Composites for Catalytic Synthesis of 2,3-Dihydroquinazolin-4(1H)-one Derivatives, ACS Appl. Nano Mater. 2021, 4, 3, 2682–2693.

M Kumar, N Lal, PM Luthra, **Dhanraj T. Masram**, Exploring Binding plus Cleavage activities of NickelII complexes towards DNA and Proteins New Journal of Chemistry 2021.

G Kumar, **Dhanraj T. Masram**, Sustainable Synthesis of MOF-5@GO Nanocomposites for Efficient Removal of Rhodamine B from Water, ACS Omega 2021 https://doi.org/10.1021/acsomega.1c00143 ISSN 2470-1343.

K Chaudhary, M Trivedi, **Dhanraj T. Masram**, NP Rath, Transition-metal complexes of group 12 with 1, 1′-bis (phosphanyl) ferrocene ligands, Acta Crystallographica Section C: Structural Chemistry 2021, 77 (5), 240-248.

K Chaudhary, Niketa Yadav, P Venkatesu, **Dhanraj T. Masram** Evaluation of Utilizing Functionalized Graphene Oxide Nanoribbons as Compatible Biomaterial for Lysozyme ACS Applied Bio Materials, 2021, 4, 8, 6112-6124 ,2021.

G. Kumar, K. Chaudhary, N. K.Mogha, A.Kant, **Dhanraj T. Masram** Extended Release of Metronidazole Drug Using Chitosan/Graphene Oxide Bionanocomposite Beads as the Drug Carrier, ACS Omega 2021, 6, 31, 20433-20444.

P. B Chouke, A.K Potbhare, N. P Meshram, M. M Rai, K. M Dadure, K. Chaudhary, A. R Rai, M. F Desimone, R.G Chaudhary, **Dhanraj T Masram**, Bioinspired NiO Nanospheres: Exploring In Vitro Toxicity Using Bm-17 and L. rohita Liver Cells, DNA Degradation, Docking, and Proposed Vacuolization Mechanism ACS Omega ACS Omega 2022, 7, 8, 6869-6884.

P. B. Choukea, K. M. Dadure, A. K. Potbhare, G.S. Bhusari, A. Mondal, K. Chaudhary, V. Singh, M. F. Desimone, R. G. Chaudhary, **Dhanraj T. Masram**, Biosynthesized δ-Bi2O3Nanoparticles from Crinum Viviparum Flower Extract for Photocatalytic Dyes Degradation and Molecular Docking, ACS Omega, Impact

2. *Research papers published in Refereed/Peer Reviewed Conferences*

Dhanraj T. Masram, K.P. Kariya and N.S. Bhave, "Synthesis of Salicylic acid Butylenediamine- Formaldehyde Resin and Its Ion Exchange Properties*", DAE-BRNS International Symposium on Materials Chemistry, December 4th* – 8th ,2006. J-04, 529-533

Dhanraj T. Masram, K.P. Kariya and N.S. Bhave, "Thermal Degradation Study of Terpolymer Resin derived from Salicylicacid –Ethylenediamine- Formaldehyde*", Thermans 2008 DAE-BRNS 6th National Symposium & workshop on Thermal Analysis, February 4th* -8th, 2008, 329-331.

Dhanraj T. Masram, K.P. Kariya and N.S. Bhave "Electrical Conductivity Study of Resin Synthesized From Saliylicacid, Ethylenediamine and Formaldehyde", 3rd *DAE-BRNS International Symposium on Materials Chemistry*

(ISMC-12010), December 7th – 11th, 2010.

Dhanraj T. Masram, K.P. Kariya and N.S. Bhave **"**Synthesis and Characterization of Resins and its role as Arsenic Remover from Water",*8th AIPTC, Kolkata, 11th & 12th Feb., 2011.*

Anamika Debnath, **Dhanraj T. Masram** and Ram Singh "Synthesis and Characterization of Selected Metal Complexes of Nalidixicacid", International Conference on Applications of Advanced Materials for Sustainable Development (AAMSD-2014).Dr. Ambedkar College RTM, Nagpur University, Nagpur & CSIR NEERI, India, on 17th –18th, January, 2014.

Dhanraj T. Masram, K.P. Kariya and N.S. Bhave, "A Novel Eco-Friendly Polymer its characterization and application," National seminar on Recent Developments in Eco Friendly Materials, At Hislop Collage ,RTM Nagpur University, Volume: 6 (1),135-147,2013

Pritee Goyal, **Dhanraj T. Masram**, "Novel biomaterial: Synthesis and characterization for decontamination of metal from waste water" Journal of Material Science Eng, doi: 10.4172/2169-0022.S1.007

3. Book published

S. Kaur-Ghumaan, A. Sakthivel, **Dhanraj T. Masram**, M. Sathiyendhiran "ELECTRONIC AND MAGNETIC PROPERTIES OF TRANSITION AND INNER TRANSITION ELEMENTS AND THEIR COMPLEXES" Nova Science Publishers, Inc. 400, Oser Avenue, Suite 1600,Hauppauge, NY **ISBN:** 978-1-53610-914-6

4. Edited Book

Analytical Chemistry (An INDIAN ADAPTATION), 2020; ISBN: 978-93-88991-09-4, Publisher: Wiley India Pvt. Ltd.

5. Book Chapters published

Dhanraj T. Masram, "Chapter 2 - Polymer Based Ion Exchange Resin"; A Book on Ion Exchange, Adsorption and Solvent Extraction, 15-44, Nova Science Publishers, Inc. 400, Oser Avenue, Suite 1600,Hauppauge, NY 11788Pub. Date: 2013 Pages: 348, 7x10 - (NBC-C) ISBN: 978-1-62417-887-0

Pritee Goyal, **Dhanraj T. Masram**, "Chapter 12: Nano Biomaterial for Decontamination of Carcinogenic Metal from Waste Water", Advances in Environmental Research, Nova Science Publishers, Inc. 400, Oser Avenue, Suite 1600,Hauppauge, NY 11788 ,pp. 191-202 . ISBN: Nova Science Publishers, Inc. 400, Oser Avenue, Suite 1600,Hauppauge, NY 11788. Editors: Justin A. Daniels Volume 41, July 01, 2015, Pages 191-202,

Manish Kumar, Navin Mogha, **Dhanraj T. Masram**, "Chapter 10: Case Studies in Biosorption", Pages 201-225, Bioremediation: Current Research and Applications Edition: 2017, Publisher: IK International Publisher, New Delhi, India, Editor: Dr Ashok K Rathoure, ISBN: 978-93-85909-60-3

Karan Chaudhary and **Dhanraj T. Masram**, "Chapter 2: Biological activities of nanoparticles and mechanism of action" Book: Model organisms to study biological activities and toxicity of nanoparticles. Pages:19-34 Publication date: 2020/3/28 Publisher: Springer. Editor: Dr. Busi Siddhardha, Chapter DOI 10.1007/978-981-15-1702-0_2; 2020, ISBN: 978-981-15-1701-3

Manish Kumar, Gyanendra Kumar, Arun Kant, **Dhanraj T. Masram**, "Chapter 3: Role of Metallodrugs in Medicinal Inorganic Chemistry." Publication date 2020/6/17Book: Advances in Metallodrugs: Preparation and Applications in Medicinal Chemistry, Pages: 71-113 Publisher John Wiley & Sons, Inc. ISBN: doi.org/10.1002/9781119640868.ch3 Editor(s): Shahid-ul-Islam,Athar Adil Hashmi,Salman Ahmad Khan

Karan Chaudhary and **Dhanraj T. Masram**, Chapter 2: Magnetic Graphene Oxide and Its Composite Nanomaterials: Application in Environmental Decontamination,September 2021, Pages: 33-52 DOI: 10.1002/9783527830978.ch2, book: Environmental Applications of Carbon Nanomaterials-Based Devices; Editor(s): Shadpour Mallakpour, Chaudhery Mustansar Hussain Publisher WILEY-VCH GmbH Print ISBN:9783527348657 |Online ISBN:9783527830978

Karan Chaudhary and **Dhanraj T. Masram**, Chapter 4: 2D Graphene Oxide-Based Composites and Their Application in Catalysis and Sensing, August 2021, Pages: 43-54DOI: 10.1007/978-981-16-3322-5_4 In book: Advanced Applications of 2D Nanostructures, Publisher Springer Nature Switzerland AG.Editor(s):Subhash Singh Kartikey Verma Chander Prakash ISBN:978-981-16-3322-5

Karan Chaudhary and **Dhanraj T. Masram**, Chapter 10: Antiviral Nanomaterials in Therapeutic Interventions Publication date 19 January 2022Book: Viral and Antiviral Nanomaterials, Pages: Publisher CRC Press ISBN: 9781003136644 DOI: 10.1201/9781003136644-13.ch3 Editor(s): Devarajan Thangadurai, Saher Islam,

T. S. Shrirame, J. S. Khan, M. S. Umekar, A. K. Potbhare, P. R. Bhilkar, G. S. Bhusari, **Dhanraj T. Masram**, A. A. Abdala, R. G. Chaudhary, Graphene-Polymer Nanocomposites for Environmental Remediation of Organic Pollutants In: Metal Nanocomposites for Energy and Environmental Applications. Energy, Environment, and Sustainability. Singapore. 01 January 2022, Print ISBN978-981-16-8598-9, Online ISBN978-981-16-8599-6.

Subodh, **Dhanraj T. Masram**, Chapter 11: Recent Advances in the Synthesis of Covalent Organic Frameworks for Heterogeneous Catalysis, Book Title-Metal-Organic Frameworks (MOFs) as Catalysts, 285-318,Chapter DOI:10.1007/978-981-16-7959-9_11; ISBN-978-981-16-7958-2 Publisher Springer Singapore

Navin Mogha, **Dhanraj T. Masram**, Chapter 16: Metal-Organic Frameworks for Pesticide Sensing: Trend in the Recent Years, Book Title-Metal-Organic Frameworks (MOFs) as Catalysts, pp 411-427 ISBN-978-981-16-7958-2 Chapter DOI10.1007/978-981-16-7959-9_16; 01 January 2022 Publisher Springer Singapore.

Conference Organization/ Presentations [Last Five Years]

List against each head(If applicable)

1. *Organization of a Conference*

11th National Conference on Solid State Chemistry and Allied Areas (NCSCA-2019) , organized by S. K. Porwal College of Arts, Science & Commerce Kamptee, Nagpur, India on 20th & 21st December 2019 at Hotel Tuli Imperial Ramdaspeth, Nagpur in association with Indian Association of Solid State Chemists and Allied Scientists (ISCAS) Jammu. (Organizing Committee Member)

Transdisciplinary International Conference "Integrated Approach in S&T for Sustainable Future (ICIASTSF-2022) is being jointly organized by Dr. Ambedkar College, Nagpur, and S.K. Porwal College, Kamptee in association with Priyadarshini J.L. College of Engineering, Nagpur and P.G.T.D. Biology & Genetics Engineering, Nagpur, India on 26-27th February 2022(Convener)

International Conference on New Horizons and Trends in Chemical Sciences" (ICNHTCS-2022) organized by Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur and Indian Society of Analytical Scientists, Nagpur Chapter on dated 25th and 26th March 2022 on Virtual Platform. (Organizing Committee Member)

National workshop on Indian Contribution to Chemical Sciences (ICCS 2022) organized with Vidya Bharati Uchcha Shiksha Sansthan (VBUSS) Department of Chemistry, University of Delhi May 6th and 7th 2022(Organizing Committee Member)

2. *Participation as Paper/Poster Presenter- 50*

Awards and Distinctions

- DST Young Scientist Award: Department of Science and Technology, Delhi, under SERB scheme 2011.
- BEST POSTER award in International symposium on "Recent Advances in Green Chemistry and chromatographic sciences". Organized by ISAS at Manav Rachana International University, Faridabad on 12-14th January, 2012.]
- National Conference on "Green Chemistry and Sustainable Technologies for Society" Dept. of Chemistry and EEE, GWEC, Ajmer, Society for Materials Chemistry, BARC Mumbai, Malviya National Institute of Technology, Jaipur, Rajsthan, India 11-12 January 2016.

Research Projects (Major Grants/Research Collaboration)

Name of Project: Novel polymers with hole transporting properties: pendant triphenylamine groups containing polyurethane-based tri-block copolymers through atom transfer radical polymerization Funding Agency: DST Fast Track Proposals for Young Scientists scheme, SERB, Government of India, Delhi, India Period: 2012- 2015.

Name of Project: Synthesis, Characterization and Biological Activities of Some Selected Quinolones and their Metal Complexes. Funding Agency: Major research project University Grants Commission (UGC) Period: 2013- 2016.

Name of Project: Decontamination of Toxic Metals from Water using Nano Fibers.
Funding Agency: SERB- Department of Science & Technology (DST), Government of India, Delhi, India.
Period: 2014 - 2015.

Name of Project: Synthesis, characterization and evaluation of anticancer activity of novel bioessential transition metal complexes having tumor targeting and antitumor active ligand **[Co-PI].**Funding Agency: Department of Biotechnology (DBT), Government of India, Delhi, India. Period: 2014 – 2017.

Association With Professional Bodies

1. *Reviewing*

ACS- Omega, Analytical Chemistry, The Journal of Organic Chemistry, Crystal Growth & Design, Sustainable Chemistry & Engineering; RSC- Dalton Transaction, New Journal of Chemistry; John Wiley-Applied Polymer Sciences, Energy Storage Taylor & Francis- Green Chemistry Letters and Reviews; Springer-Journal of Thermal Analysis and Calorimetry, Research on Chemical Intermediates; CSIR-NISCAIR- Indian Journal Chemistry, Sec A, Elsevier- Colloids and Surfaces A: Physicochemical and Engineering Aspects, Journal of Luminescence, Journal of Molecular Structure, Journal of Saudi Chemical Society, Biophysical Chemistry, The Korean Journal of Chemical Engineering, Member in Editorial Board - IJNTSE.

2. *Memberships*

- Life Member - CRSI, Bengaluru, SMC, BARC, Mumbai, ISAS, Delhi, FOSET, Kolkata, ICC, Agra, IAPS, Allahabad, EMSI affiliated to International Federation of Society for Electron Microscopy.
- Member of American Chemical Society (2014-2015, 2018-2019, 2021-2022) ACS Member #30765811
- Member of Royal Society of Chemistry (2014-2015&2015-2016) MRSC#538337

Other Activities

Actively Participated in

64th BRNS-IANCAS National Workshop on "Radiochemistry & Application of Radioisotopes" sponsored by BRNS, DAE and RTM Nagpur University, Nagpur and IANCAS, Jul. 2-10, 2007.

62nd orientation program conducted by UGC- Academic Staff College RTM Nagpur University Nagpur.18/02/2009-17/03/2009.

Refresher course on "Contemporary Non-equilibrium Thermodynamics and Statistical Mechanics" held at Department of Chemistry; RTM Nagpur University, Nagpur, sponsored by Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi, National Academy of Sciences, India, Allahabad, from 20th October to 2nd November 2010.

"Kabul Project" for up-gradation of Faculty and infrastructure of Science Departments of Kabul University, University of Delhi had organized a training programme from in 2nd January to 25th February 2012.

Refresher course in Chemistry conducted by UGC- Academic Staff College RTM Nagpur University Nagpur.23/02/2015-15/03/2015.

Faculty development Programe on Mass Spectrometry and Thermal Analysis Techniques. 13th to 18th July 2020 Chennai (One Week). Centre for Ocean Research, Satyabhama Institute of Science and Technology. (On line mode)

One Week Short term Course on Recent advances in Nanoscience and Nanotechnology (RANN-2020) (Under TEQIP-III) from August 24-28/2020 (One Week). Department of Physics, National Institute of Technology, Srinagar, Jammu and Kashmir. (On line mode)

Five Days Faculty Development Program Recent advances on Molecular Chemistry and Functional Materials" 17th-21st August2020 (One Week).Amity institute of click chemistry research and studies (AICCRS) under the umbrella of amity university Noida campus. (On line mode)

10-Day Hands on Training on Advanced Molecular Docking Course from 16 - 26 October 2021 conducted by the Directorate of Research, SAFI Institute of Advanced Study, Calicut, Kerala in association with SIAS Research Forum Kohinoor, Calicut University(On line mode)

Signature of Faculty Member