




## Faculty Details proforma for DU Web-site

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Title	Prof./Dr./Mr./Ms./Mrs.	First Name	Surendra	Last Name	Singh	Photograph
Designation		Assistant Professor				
Address		Department of Chemistry University of Delhi				
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Educational Qualifications						
Degree		Institution			Year	
Ph.D.		Central Salt & Marine Chemical Research Institute, Bhavnagar, Gujarat (Title: Synthesis and Characterization of Chiral Salen Transition Metal Complexes as Enantioselective Epoxidation Catalyst)			2006	
M.Phil. / M.Tech.		-----				
PG		S. D. Govt. College, Beawer, Rajasthan (M. D. S. University Ajmer, Rajasthan)			2000	
UG		S. D. Govt. College, Beawer, Rajasthan (M. D. S. University Ajmer, Rajasthan)			1998	
Any other qualification						
Career Profile						
1. Assistant Professor		University of Delhi			10 <sup>th</sup> March 2010 to till date	
2. Postdoctoral Researcher (IRCSET Fellow)		Centre for Synthesis and Chemical Biology University College Dublin, Ireland			Sept, 2006 to Jan, 2010	
3. Ph.D		Central Salt and Marine Chemical Research Institute (CSMCRI), Bhavnagar, Gujarat,			May, 2002 to Sept, 2006	
Administrative Assignments						
<ol style="list-style-type: none"> <li>1. Deputy Coordinator for Central Evaluation System of Department of Chemistry, Sem. I &amp; III, 2010</li> <li>2. Deputy Coordinator for Central Evaluation System of Department of Chemistry, Sem. II &amp; IV, 2015</li> <li>3. Deputy superintendent for Even Semester examination 2018</li> <li>4. Departmental Purchase Committee member 2015-17</li> <li>5. Section Convener 2015-16</li> <li>6. DST-FIST proposal preparation committee</li> <li>7. 400 MHz NMR purchase committee member under DST-FIST grant</li> <li>8. 400 MHz NMR purchase committee member under XII plan grant</li> </ol>						
Areas of Interest / Specialization						
Organic Chemistry Specialization (Development of catalyst for industrially useful organic transformations,						

Asymmetric catalysis, Total synthesis of biological important molecules, Synthetic methodology development)	
Subjects Taught	
<p><b>1. M. Sc.</b></p> <p><b>(I) Organic Stereochemistry</b></p> <p><b>(II) Methods in Organic Synthesis</b></p> <p><b>(III) Spectroscopy of Organic Compounds</b></p> <p><b>(IV) Photochemistry</b></p> <p><b>2. Ph. D. Course work</b></p> <p><b>(I) UNIT-XXVI: Metal Catalyzed Cross coupling reactions</b></p> <p><b>(II) UNIT-XXXI: Organic Name Reactions</b></p>	
Research Guidance	
<p>List against each head (If applicable)</p> <p>Supervision of awarded Doctoral Thesis</p> <ol style="list-style-type: none"> <li>1. Dr. Mohd. Rashid</li> <li>2. Dr. Manmohan Singh Chauhan</li> <li>3. Dr. Pramod Kumar</li> <li>4. Dr. Geeta Devi Yadav</li> <li>5. Ms. Sweta Dumoga</li> <li>6. Mr. Ashish Dixit</li> </ol> <p>Supervision of Doctoral Thesis, under progress</p> <ol style="list-style-type: none"> <li>7. Ms. Deepa</li> <li>8. Mohd Jubair Aalam</li> <li>9. Ms. Pooja Chaudhary</li> <li>10. Mr. Dhan Raj Meena (Teacher Fellow)</li> </ol> <p>Supervision of awarded M.Phil dissertations Nil</p> <p>Supervision of M.Phil dissertations, under progress Nil</p>	
Publications Profile	
<p>List against each head (If applicable) (as Illustrated with examples)</p> <p><b>Books/Monographs (Authored/Edited) Nil</b></p> <p><b>Research papers published in Refereed/Peer Reviewed Journals</b></p> <p>[1] Chiral Imidazolidin-4-one with catalytic amount of Dicationic ionic liquid act as a recoverable and reusable Organocatalyst for asymmetric Diels-Alder reaction, Deepa, G. D. Yadav, P. Chaudhary M. J. Aalam, D. R. Meena and <b>S. Singh*</b>, <i>Chirality</i>, <b>2020</b>, 32, 64.</p> <p>[2] Prolinamide catalyzed asymmetric organic transformations, G. D. Yadav, Deepa, and S. Singh*, <i>ChemistrySelect</i> <b>2019</b>, 4, 5591.</p>	

- [3] Synthesis of Dihydropyrimidinones (DHPMs) and Hexahydro Xanthene Catalyzed by 1,4-Diazabicyclo [2.2.2] Octane Triflate Under Solvent-Free Condition, Deepa, G. Devi Yadav, M. J. Aalam, P. Chaudhary and S. Singh\*, *Current Organic Synthesis*, **2019**, *16*, 776
- [4] Synthesis of chiral salalen ligands and their in-situ generated Cu-complexes for asymmetric Henry reaction A. Dixit, P. Kumar, S. Singh\*, *Chirality*, **2018**, *20*, 1257
- [5] Asymmetric Henry reaction catalyzed by chiral Cu(II) salalen and salan complexes derived from (S)-proline. A., Dixit; P., Kumar; G. D., Yadav; S., Singh *Inorganica Chimica Acta*, **2018**, *479*, 240.
- [6] Block copolymer based nanoparticles for theranostic intervention of Cervical Cancer: Synthesis, pharmacokinetics and in-vitro/ in-vivo evaluation in HeLa xenograft models. S. Dumoga; Y., Rai; A. N. Bhatt; A. K. Tiwari, S. Singh, A. K. Mishra\*, D. Kakkar\*, *ACS Appl. Mater. Interfaces*, **2017**, *9*, 22195
- [7] 1,4-Diazabicyclo[2.2.2]octane trifluoroacetate: A highly efficient organocatalyst for the cyanosilylation of carbonyl compounds under solvent free condition. G. D., Yadav, Deepa and S. Singh\* *ChemistrySelect*, **2017**, *2*, 4830
- [8] (L)-Prolinamide imidazolium hexafluorophosphate ionic liquid as an efficient reusable organocatalyst for direct asymmetric aldol reaction in solvent-free condition G. D. Yadav and S. Singh\* *RSC Adv.*, **2016**, *6*, 100459
- [9] *trans*-4-Hydroxy-(L)-prolinamide as an efficient catalyst for direct asymmetric aldol reaction of acetone with isatins, G. D. Yadav and S. Singh\* *Tetrahedron: Asymmetry* **2016**, *27*, 463
- [10] *N*-Arylprolinamide act as an organocatalyst for direct asymmetric aldol reaction of acetone with isatin G. D. Yadav and S. Singh\* *Tetrahedron: Asymmetry* **2016**, *27*, 123
- [11] Salts of 1-(Chloromethyl)-DABCO: A highly efficient organocatalyst for the alcoholysis of epoxides A. Dixit, G. D. Yadav, M. S. Chauhan and S. Singh\* *Current catalysis*, **2016**, *5*, 203.
- [12] Asymmetric Henry Reaction Catalyzed by Manganese Complexes, P. Kumar, M. S. Chauhan, G. D. Yadav and S. Singh\* *Synfact* **2016**, *12(4)*, 0382
- [13] Surfactant directed Ag<sub>1-x</sub>Ni<sub>x</sub> alloy nanoparticle catalysed synthesis of aromatic azo derivatives from aromatic amines, M. Kumar, K. Soni, G. D. Yadav, S. Deka\* *Applied Catalysis A: General*, **2016**, *525*, 50-58
- [14] (S)-Pyrrolidine-containing chiral manganese (III)-salalen and salan complexes as catalyst for the asymmetric Henry reaction P. Kumar, M. S. Chauhan, G. D. Yadav and S. Singh\* *Synlett* **2016**, *27*, 267
- [15] Novel biotin-functionalized lipidic nanocarriers for encapsulating BpT and Bp4eT iron chelators: evaluation of potential anti-tumour efficacy by *in vitro*, *in vivo* and pharmacokinetic studies in A549 mice models S. Demoga, N. Dey, A. Kaur, S. Singh, A. K. Mishra\*, D. Kakkar\* *RSC Adv.*, **2016**, *6*, 61585
- [16] Yttrium Containing Dimeric and Tetrameric Keggin Type Phosphotungstates: Syntheses, Crystal Structure and Catalytic Activity for Alcohol Oxidation Using H<sub>2</sub>O<sub>2</sub> as an Oxidant in Water F. Hussain\*, M. K. Saini, R. Gupta and S. Singh *Current Catalysis* **2016**, *5*, 66
- [17] Direct asymmetric aldol reaction catalyzed by *trans*-4-hydroxy-(S)-prolinamide in solvent-free conditions G. D. Yadav and S. Singh\* *Tetrahedron: Asymmetry* **2015**, *26*, 1156

- [18] Methyloxonium Triflate: an Efficient Catalyst for ring Opening of Epoxides with Alcohols under Ambient Conditions G. D. Yadav, M. Mishra and **S. Singh\*** *Current Catalysis* **2015**, 4, 133
- [19] Synthesis of MacMillan catalyst modified with ionic liquid as a recoverable catalyst for asymmetric Diels–Alder reaction M. S. Chauhan, P. Kumar and **S. Singh\*** *RSC Adv.*, **2015**, 5, 52636
- [20] Asymmetric reduction of ketones catalyzed by a,  $\alpha$ -diphenyl-(L)-prolinol modified with imidazoliumionic liquid and  $\text{BH}_3\cdot\text{SMe}_2$  as a recoverable catalyst M. S. Chauhan, **S. Singh\*** *Journal of Molecular Catalysis A: Chemical* **2015**, 398, 184
- [21] Synthesis, crystal structure and catalytic activity of the guanidinium cation directed nickel(II)-containing open Wells–Dawson 19-tungstodiarсенate(III)  $[\{\text{Ni}(\text{H}_2\text{O})_4\}_2\{\text{Na}(\text{H}_2\text{O})\}\text{-As}_2\text{W}_{19}\text{O}_{67}(\text{H}_2\text{O})\}^9$ - M. Saini, R. Gupta, **S. Singh** and F. Hussain\*, *RSC Adv.*, **2015**, 5, 25273
- [22] Chiral  $\text{Mn}^{\text{III}}$ –salalen and –salan Complexes Derived from (S)-Pyrrolidin-2-ylmethanamine and Their Catalytic Activity in the Asymmetric Strecker Reaction P. Kumar, S. Saravanan, N. H. Khan, F. Hussain, **S. Singh\***, *Eur. J. Inorg. Chem.*, **2014**, 5077
- [23] Lanthano-phosphotungstates: A water soluble and reusable catalyst for oxidation of alcohols using  $\text{H}_2\text{O}_2$  as an oxidant M. Saini, R. Gupta, S. Parbhakar, **S. Singh\*** and F. Hussain\*, *RSC Adv.*, 2014, 4, 38446
- [24] N-Fluorobenzenaminium tetrafluoroborate generate in situ by aniline and Selectfluor as a reusable catalyst for ring opening of epoxides with amines under microwave irradiation M. S. Chauhan, G. D. Yadav, F. Hussain, **S. Singh\***, *Catal. Sci. Technol.*, **2014**, 3945
- [25] Ring opening of epoxides with alcohols using  $\text{Fe}(\text{Cp})_2\text{BF}_4$  as catalyst G. D. Yadav and **S. Singh\*** *Tetrahedron Lett.* **2014**, 55, 3979.
- [26]  $\text{Fe}(\text{Cp})_2\text{BF}_4$ : An efficient Lewis acid catalyst for the aminolysis of epoxides G. D. Yadav, M. S. Chauhan and **S. Singh\*** *Synthesis*, **2014**, 629
- [27] Synthesis of rhenium-based  $\text{M}_2\text{LL}\phi$ -type supramolecular coordination complexes from flexible ligands, B. Shankar, P. Elumalai, P. J. Jackmil, P. Kumar, **S. Singh**, M. Sathiyendiran *Journal of Organometallic Chemistry* **2013**, 743, 109
- [28] Asymmetric Synthesis of (+)-Tanikolide and the  $\beta$ -Methyl-Substituted Analogues of (+)-Tanikolide and (–)-Malyngolide, R. Doran, L. Duggan, **S. Singh**, C. D. Duffy, and P. J. Guiry\*, *Eur. J. Org. Chem* **2011**, 7097
- [29] A Short and Efficient Asymmetric Synthesis of (–)-Frontalin, (–)-exo-Isobrevicomin and volatile component of Beer-Aroma. **S. Singh**, Patrick. J. Guiry\*, *Tetrahedron* **2010**, 66, 5701
- [30] Microwave assisted synthesis of substituted Tetrahydropyran catalysed by  $\text{ZrCl}_4$  and Application in Asymmetric synthesis of (–)-endo-brevicomin and (+)-exo-brevicomin. **S. Singh** and P. J. Guiry\*, *J. Org. Chem.* **2009**, 74, 5758
- [31] A Facile Synthesis of both Enantiomers of 6-Acetoxy-5-hexadecanolide, a Major Component of Mosquito Oviposition Attractant Pheromones **S. Singh** and P. J. Guiry\*, *Eur. J. Org. Chem* 2009, 1896

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- [33] ZrCl<sub>4</sub> as An Efficient Catalyst for a Novel One-Pot Protection/ deprotection Synthetic Methodology **S. Singh**, C. D. Duffy, S. T. Ali Shah and P. J. Guiry\*, *J. Org. Chem.* 2008, 73, 6429
- [34] Fe(Cp)<sub>2</sub>PF<sub>6</sub> Catalyzed Efficient Strecker Reaction of Ketones and Aldehydes under Solvent free Condition N. H. Khan\*, S. Agrawal, R. I. Kureshy, S. H. R. Abdi, **S. Singh**, E. Suresh, and R. V. Jasra., *Tetrahedron Lett.* **2008**, 49, 640
- [35] Chiral Recyclable Dimeric and Polymeric Cr(III) Salen Complexes Catalyzed Aminolytic Kinetic Resolution of *trans*-aromatic Epoxides under Microwave Irradiation R. I. Kureshy\*, K. J. Pratap, **S. Singh**, S. Agrawal, N. H. Khan, S. H. R. Abdi and R. V. Jasra, *Chirality* **2007**, 19, 809
- [36] Efficient Method for Ring Opening of Epoxides with Amines by NaY Zeolite under Solvent-Free Conditions R. I. Kureshy\*, **S. Singh**, N. H. Khan, S. H. R. Abdi, E. Suresh and R. V. Jasra, *J. Mol. Catal. A: Chemical* **2007**, 264, 162
- [37] Fe(Cp)<sub>2</sub>PF<sub>6</sub>: An Efficient Catalyst for Cyanosilylation of Carbonyl Compounds under Solvent Free Condition N. H. Khan\*, S. Agrawal, R. I. Kureshy, S. H. R. Abdi, **S. Singh** and R. V. Jasra, *Journal of Organometallic Chemistry* **2007**, 692, 4361
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- [40] Microwave-assisted Asymmetric Ring opening of Meso Epoxides with Aromatic amines Catalyzed by a Ti-S(-)-BINOL Complex R. I. Kureshy\*, **S. Singh**, N. H. Khan, S. H. R. Abdi, Santosh Agrawal, V. J. Mayani and R. V. Jasra, *Tetrahedron Lett.* **2006**, 47, 5277
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- [43] New Immobilization Chiral Mn(III) Salen on Pyridine N-Oxide Modified MCM-41 as Effective Catalysts for Epoxidation of nonfunctionalized Alkenes R. I. Kureshy\*, I. Ahmad, N. H. Khan, S. H. R. Abdi, **S. Singh**, P. H. Pandiya and R. V. Jasra, *Journal of Catalysis* **2005**, 235, 24
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Dimeric Mn(III) Salen complexes R. I. Kureshy\*, N. H. Khan, S. H. R. Abdi, **S. Singh**, I. Ahmad, R.V. Jasra and A. P. Vyas, *Journal of Catalysis* **2004**, 224, 22.

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[46] Dicationic chiral Mn(III) Salen complex Exchanged in the inter-layers of Montmorillonite clay: A Heterogeneous Enantioselective catalysts for Epoxidation of nonfunctionalised Alkenes R. I. Kureshy\*, N. H. Khan, S. H. R. Abdi, I. Ahmad, **S. Singh** and R. V. Jasra. *Journal of Catalysis* **2004**, 221, 234

[47] Chiral Mn (III) Salen Complex-catalyzed Enantioselective Epoxidation of non-functionalized Alkenes using urea-H<sub>2</sub>O<sub>2</sub> Adduct as Oxidant R. I. Kureshy\*, N. H. Khan, S. H. R. Abdi, **S. Singh**, I. Ahmad, R. S. Shukla and R. V. Jasra, *Journal of Catalysis* **2003**, 219, 1

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Conference Organization/ Presentations (in the last three years)

List against each head(If applicable)

**Organization of a Conference: Nil**

**Participation as Paper/Poster Presenter**

S.No	Title of the Paper presented	Details of Conference / Seminar/ Workshop/ Symposia	Whether the Conference Proceedings are published. ISBN/ISSN	Whether First/Corresponding	Whether International/National/Regional/State/University/College level
1	Poster entitled "Production of highly enantioselective epoxides and diols using Co(III) Salen complexes via hydro-kinetic resolution of racemic epoxides"	1 <sup>st</sup> Indo-German Conference on Catalysis, held at <b>IICT Hyderabad, February 6-8, 2003.</b>	No	Co-author	International

2	A paper entitled, "Homochiral Dimeric Mn(III) Salen complex-catalysed enantioselective epoxidation of non-functionalised alkenes using NaOCl as oxidant.	TAGRSM-2003 organized by Indian Chemical society <b>Vadodara Chapter on 23<sup>rd</sup> February 2003</b> <b>(Best Paper) Presentation)</b>	No	Co-author	State
3	A poster entitled, "Catalytic asymmetric epoxidation of non-functionalised alkenes using polymeric Mn(III) salen as catalysts and NaOCl as oxidant"	Symposium on Modern Trends in Inorganic Chemistry, held at IIT Mumbai, 15-17 Dec. 2003.	No	Co-author	National
4	A paper presented "Enantioselective epoxidation of non-functionalised alkenes using recyclable homochiral dimeric Mn(III) Salen complexes as catalysts with hydrogen peroxide and UHP adduct as oxidants"	First Junior NOST Symposium Organized by NCL, Pune 8-10 November 2004	No	Co-author	National
5	A poster entitled "A Facile Catalytic Enantioselective Synthesis of syn- $\beta$ - Amino alcohols by Ring opening of meso Aromatic epoxides with Aromatic amines by Ti(BINOL) Complexes"	17 National Symposium on Catalysis held at CSMCRI Bhavnagar Jan 18-20, 2005	No	Co-author	National
6	A poster entitled "Synthesis of Polymeric Cr(III) Salen complexes for Asymmetric Kinetic resolution of trans epoxides with anilines"	Symposium on Modern Trends in Inorganic Chemistry (MTIC-XI) held at IIT Delhi Dec.8-10, 2005.	No	Co-author	National



7	A poster entitled "A Novel one-pot Protection/deprotection synthetic methodologies catalysed by ZrCl <sub>4</sub> for the synthesis of key intermediates of Lipoxin analogues and mosquito attractant pheromones"	ESF-COST High-Level Research Conference Natural Products Chemistry, Biology and Medicine held at <b>Acquafredda di Maratea, Italy 18-23 May 2008.</b>	No	First Author	International
8	A poster entitled "Selectfluor as a reusable catalyst chemo-and regio-selective ring opening of epoxides with amines under microwave irradiations"	15 <sup>th</sup> CRSI National Symposium in Chemistry held at BHU, Banaras on <b>February 1-3, 2013.</b>	No	Corresponding Author	National
9	A poster entitled "Synthesis and Characterization of L-Prolinamide Based Chiral Mn(III) Salalen Complexes and Their Applications in Asymmetric Catalysis"	<b>19<sup>th</sup> ISCB International Conference (ISCBC-2013), 2<sup>nd</sup>-5<sup>th</sup> March, 2013</b> at Department of Chemistry, Mohanlal Sukhadia University, Udaipur, Rajasthan.	No	Corresponding Author	International
10	An oral presentation entitled "Synthesis and Characterization of L-Prolinamide Based Chiral Mn(III) Salalen Complexes and Their Applications in Asymmetric Strecker Reaction."	<b>National Conference on Chirality (NCC)-2013, 7-8, December 2013,</b> Department of Chemistry, Faculty of Science, M.S. University of Baroda, Vadodara, Gujarat,	No	Corresponding Author	National
11	A poster entitled 'Synthesis and Characterization of Chiral Prolinamide modified with ionic liquid for asymmetric Aldol Reaction"	<b>National Conference on Chirality (NCC)-2013, 7-8, December 2013,</b> Department of Chemistry, Faculty of Science, M.S. University of Baroda, Vadodara, Gujarat,	No	Corresponding Author	National



12	A poster entitled "Synthesis and Characterisation of Ionic Liquid with Prolinol as Recyclable Catalyst for Asymmetric Reduction of Ketones"	<b>20<sup>th</sup> ISCB International Conference</b> at University of Delhi on March 1-4, 2014.	No	Corresponding Author	International
13	A poster entitled "Ring-opening of epoxides with alcohol using Fe(Cp) <sub>2</sub> BF <sub>4</sub> as catalyst"	<b>20<sup>th</sup> ISCB International Conference</b> at University of Delhi on March 1-4, 2014.	No	Corresponding Author	International
14	A poster entitled "Synthesis and characterization of Prolinol based chiral ionic liquid"	<b>One-day Symposium on Emerging trends in translation research in India</b> Shiv Nadar University, India on 12 <sup>th</sup> April, 2014	No	Corresponding Author	National
15	A poster entitled "Highly efficient regio-selective methanolysis of epoxide catalyzed Fe(Cp) <sub>2</sub> BF <sub>4</sub> "	<b>One-day Symposium on Emerging trends in translation research in India</b> Shiv Nadar University, India on 12 <sup>th</sup> April, 2014	No	Corresponding Author	National
16	An oral presentation entitled "Synthesis and development of chiral salalen and salan ligands and its transition metal complexes for asymmetric organic transformations"	<b>National Conference on Mastering in Molecules and Materials (M<sup>3</sup>-2014)</b> 16-17 Oct 2014, NIT Kurkshetra	No	First and corresponding Author	National
17	An poster entitled "Fe(Cp) <sub>2</sub> BF <sub>4</sub> as a Lewis acid catalyst for ring opening of epoxides with amines"	<b>National Conference on Mastering in Molecules and Materials (M<sup>3</sup>-2014)</b> 16-17 Oct 2014, NIT Kurushetra, Haryana	No	corresponding Author	National
18	An oral presentation entitled "Development of recoverable chiral 1,3,2-oxazaborolidine catalyst for asymmetric reduction of ketones"	<b>22<sup>nd</sup> National Symposium on Catalysis (CATSYMP 22) CSIR-CSMCRI</b> January 7-9,2015	No	corresponding Author	National

19	Trans-4-hydroxy-L-prolinamide act as an efficient catalyst for asymmetric aldol reaction	22 <sup>nd</sup> National Symposium on Catalysis ( <b>CATSYMP 22</b> ) held at <b>CSIR-CSMCRI</b> January 7-9, 2015	No	corresponding Author	National
20	A poster entitled "Modification McMillan catalyst with ionic liquid as a recoverable catalyst for asymmetric Diels Alder reaction"	<b>21<sup>st</sup> ISCB International Conference</b> at CDRI, Lucknow, on February 25-28, 2015.	No	Corresponding Author	International
21	A poster entitled (S)-pyrrolidine Containing Chiral Mn(III) Salalen and Salan complexes as Catalysts for the Asymmetric Nitro-Aldol Reaction	<b>21<sup>st</sup> ISCB International Conference</b> at CDRI, Lucknow, on February 25-28, 2015.	No	Corresponding Author	International
22	A poster entitled "C <sub>1</sub> -Symmetric in situ generated Cu(II) Salalen and Salan complexes: Efficient Catalysts for Asymmetric Henry Reaction	<b>21<sup>st</sup> ISCB International Conference</b> at CDRI, Lucknow, on February 25-28, 2015.	No	Corresponding Author	International
23	An oral presentation entitled "Development of Recoverable Organo Catalyst for Asymmetric Diels-Alder Reaction",	National Conference on Frontiers at the Chemistry-Allied Science Interface ( <b>FCASI</b> ) held at <b>Rajasthan University, Jaipur</b> , March 13-14, 2015	No	corresponding Author	National
24	A poster entitled "Synthesis of 4-hydroxy-(L)-prolinamide as efficient catalyst for the asymmetric direct aldol reaction"	National Conference on Frontiers at the Chemistry-Allied Science Interface ( <b>FCASI</b> ) held at <b>Rajasthan University, Jaipur</b> , March 13-14, 2015	No	corresponding Author	National

25	A poster entitled "N-Arylprolinamide act as a organocatalyst for direct asymmetric aldol reaction of acetone with Isatin"	National Conference on Recent Advancement in Chemical Sciences (RAICS 2015) held at <b>MNIT, Jaipur, August 21<sup>st</sup>-23<sup>rd</sup>, 2015</b>	No	corresponding Author	National
26	An oral presentation entitled "Synthesis of salan and salalen ligands and their Mn(III) and Cu(II) complexes derived from (L)-proline for asymmetric Henry reaction"	National Conference on Recent Advancement in Chemical Sciences (RAICS 2015) held at <b>MNIT, Jaipur, August 21<sup>st</sup>-23<sup>rd</sup>, 2015</b>	No	corresponding Author	National
27	An oral presentation entitled "Prolinamide derived from (S)- <i>a</i> -methylphenyl amine act as an efficient catalyst for asymmetric aldol reaction"	National Conference on Chirality (NCC 2015) 18-19 December, <b>Department of Chemistry, M. S. University Baroda, Vadodara, Gujarat</b>	No	Corresponding Author	National
28	MacMillan's Catalyst Modified with Ethanolamine and Its Application in Asymmetric Diels-Alder Reaction	International Conference on Current Challenges in Drug Discovery Research CCDDR 2015 held at <b>MNIT, Jaipur, Nov 23-25, 2015</b>	No	Corresponding Author	International
29	Methanolysis of Epoxides with Alcohols Catalysed by DABCO Salts at Ambient Conditions	International Conference on Current Challenges in Drug Discovery Research CCDDR 2015 held at <b>MNIT, Jaipur, Nov 23-25, 2015</b>	No	Corresponding Author	International
30	Ionic Liquid of trans-4-hydroxy-(L)-prolinamide with Imidazole as Efficient Recoverable Organocatalyst for Direct Asymmetric Aldol Reaction	DU-JAIST Indo-Japan Symposim on Chemistry of Functional Molecules/Materials, <b>26-27, Feb 2016 at University of Delhi, Delhi</b>	No	Corresponding Author	International

31	HS-Cellulose as a recyclable heterogeneous catalyst in methanolysis of styrene oxide	International Conference on Frontiers at the Chemistry-Allied Sciences Interface  <b>21-22 December, 2018 at University of Rajasthan, Jaipur</b>	No	First Author	International
32	Binol Ti Complexes as a Catalyst for the Asymmetric Ring Opening of Epoxide	25 <sup>th</sup> ISCB INTERNATIONAL CONFERENCE (ISCBC-2019)  <b>12-14 January, 2019 at Hotel Golden Tulip, Lucknow</b>	No	First Author	International
33	HS-Cellulose as a recyclable heterogeneous catalyst in methanolysis of styrene oxide	INDO-GERMAN WORKSHOP ON Multivalent Macromolecular Architectures for Biomedical Applications  <b>5-6<sup>th</sup> April 2019 at University of Delhi, Delhi</b>	No	First Author	International
34	Synthesis of recoverable and reusable MacMillan based Ionic liquid and their application in Asymmetric Diels Alder reaction	International Conference on Frontiers at the Chemistry-Allied Sciences Interface  <b>21-22 December, 2018 at University of Rajasthan, Jaipur</b>	No	First Author	International

35	Magnetic nanoparticle supported with MacMillan as an efficient recoverable Catalyst for Asymmetric Diels Alder reaction	25 <sup>th</sup> ISCB INTERNATIONAL CONFERENCE (ISCBC-2019) <b>12-14 January, 2019 at Hotel Golden Tulip, Lucknow</b>	No	First Author	International
36	Synthesis of recoverable and reusable MacMillan based Ionic liquid and their application in Asymmetric Diels Alder reaction	INDO-GERMAN WORKSHOP ON Multivalent Macromolecular Architectures for Biomedical Applications <b>5-6<sup>th</sup> April 2019 at University of Delhi, Delhi</b>	No	First Author	International
37	(L)-Prolinamide imidazolium hexafluorophosphate ionic liquid as an efficient reusable organocatalyst in Direct Asymmetric Aldol Reaction of Isatin with Acetone	International Conference on Frontiers at the Chemistry-Allied Sciences Interface <b>21-22 December, 2018 at University of Rajasthan, Jaipur</b>	No	First Author	International
38	Modified MacMillan Catalyst for Asymmetric Biginelli Reaction	25 <sup>th</sup> ISCB INTERNATIONAL CONFERENCE (ISCBC-2019) <b>12-14 January, 2019 at Hotel Golden Tulip, Lucknow</b>	No	First Author	International

39	(L)-Prolinamide imidazolium hexafluorophosphate ionic liquid as an efficient reusable organocatalyst in Direct Asymmetric Aldol Reaction of Isatin with Acetone	INDO-GERMAN WORKSHOP ON Multivalent Macromolecular Architectures for Biomedical Applications <b>5-6<sup>th</sup> April 2019 at University of Delhi, Delhi</b>	No	First Author	International
<b>Invited Lectures</b>					
1	Chemistry in our Lives	On International Year of Chemistry at Fakir Mohan Autonomous College, Balasore-Orissa on 24/08/2011	State		Sole
2	Stereochemistry of Organic Compounds	Resource person in a UGC-Refresher Course 2013 at Jamia Millia Islamia University, Delhi	National		Sole
3	Ring opening of epoxides with nitrogen, carbon and oxygen as nucleophiles and its applications in synthesis of biologically important molecules	National Seminar on Current Trends in Chemical Sciences, July 12-13, 2014 Dept. of Chemistry St. Andrew's College, Gorakhpur	National		Corresponding
4	Development of Organocatalysts for Asymmetric organic transformation	International Conference on Current Challenges in Drug Discovery Research, Dept. of Chem., MNIT, Jaipur	International		Sole
5	Development of Chiral Catalysts for Asymmetric Aldol and Henry Reactions	25 <sup>th</sup> ISCB INTERNATIONAL CONFERENCE (ISCBC-2019) <b>12-14 January, 2019 at Hotel Golden Tulip, Lucknow</b>	International		Sole
6	Asymmetric Henry reaction catalyzed Mn(III) and Cu(II) Complexes of Salalen Ligands derived from (L)-Proline	International Conference on Frontiers at the Chemistry-Allied Sciences Interface <b>21-22 December, 2018 at University of Rajasthan,</b>	International		Sole

7	Development of Recoverable Organocatalysts modified with ionic liquid for Asymmetric organic transformations	International Conference on Frontiers at the Chemistry-Allied Sciences Interface <b>22-23 July, 2017 at University of Rajasthan, Jaipur</b>	International	Sole
8	Development of Organocatalyst for Asymmetric Diels-Alder and Aldol Reactions	National Conference ON Organic Chemistry in Sustainable Development: Recent Advances and Future Challenges, August 29-30, 2019  Dept. of Chemistry	National	Sole
9	Development of Organocatalyst for asymmetric organic transformations	National Conference on Chirality (NCC 2015) 18-19 December, Department of Chemistry, M. S. University Baroda, Vadodara, Gujarat	National	Sole

#### Research Projects (Major Grants/Research Collaboration)

1. DU-DST PURSE Grant of 3.8 Lac INR
2. R&D Grant from Delhi university 2.5 Lac INR for year 2010-2011
3. R&D Grant from Delhi university 2.5 Lac INR for year 2011-2012
4. R&D Grant from Delhi university 2.5 Lac INR for year 2012-2013
5. R&D Grant from Delhi university 2.8 Lac INR for year 2013-2014
6. R&D Grant from Delhi university 3.0 Lac INR for year 2014-2015
7. DU-DST PURSE Grant of 2.21 Lac INR for year 2015-16
8. Research project completed sponsored by Reliance Industry Limited (RIL), 20.5 Lac INR for one year and six month duration
9. Research Project completed sponsored by DST "Fast track Young Scientist" 27.0 Lac INR for three year duration (2013-2016)
10. Research Project completed sponsored by CSIR-EMR, 18.4 Lac INR for three year duration (2013-2016)
11. Research Project on-going sponsored by SERB-DST, 35.5 Lac INR for three year duration (2017-2020)
12. *Research Project on-going sponsored by CSIR-EMR, approx.34.0 Lac INR for three year duration (2017-2020)*

#### Awards and Distinctions

1. **CSIR-JRF in 2001**
2. **Irish Research Council of Science, Engineering and Technology (IRCSET) post-doctoral fellowship 2006**
3. **Best paper presentation Award TAGRSM-2003**

#### Association With Professional Bodies

1. *Editing*
2. *Reviewing: RSC Advances, Catalysis Science Technology,*
3. *Advisory*
4. *Committees and Boards*



*Organic Group section convener 2016-17*  
*Member of Departmental Research Committee 2014-2016*  
*Member of Departmental seminar committee 2015- to till date*  
*Member of committee constituted to combat Holi hooliganism2015*  
*Member of committee constituted to combat Holi hooliganism2016*  
*Member of Departmental Purchase committee 2015-till date*  
*Member of various technical committees for procurement of equipment in Department*

5. *Memberships*

*Chemical Research Society of India (CRSI)*  
*Indian Society of Chemist and Biologists (ISCB)*

6. *Office Bearer*

**Other Activities**

Signature of Faculty Member

- You are also requested to also give your complete resume as a DOC or PDF file to be attached as a link on your faculty page.