FACULTY PROFILE

Place for Photograph

Name	**Dr. Niraj**						Date of Birth: 05/09/1977				
Designation					Date of holding Present Post						
Name of the Department and School	Department of Chemistry						School of Chemical Science & Technology				
Contact Details	Email :nirajiitr@gmail.com						Mobile: 9329551593				
Additional Responsibility in the university, if any	Member of IQAC										
Educational Qualifications (UG onwards)	Ph.D.										
Research Area/Specialization	Environmental Inorganic Chemistry										
Awards/ Honors / Fellowship Conferred (With details thereof)	Junior Research Fellow in DST funded project between Dec. 2004 to March 2006; NET-LS (Dec. 2004); GATE-2003; GATE-2005; Certificate of Excellence, Cognizance-2008, IIT Roorkee.										
Summary of Publications (Number only)	Research Papers	25	Books	Nil	Chapter in Books	01	Seminars/ Conferences Proceedings	02	Projects	03	

Research Projects (Completed and Ongoing):

S.No.	*Title*	*Funding Agency*	*Duration*	*Sanction order No. & Date*	*Amount in Rs. Lakh*	*Completed/ongoing*
1.	Impact of carbamate pesticides on soil composition and its morphology	UGC	2 years	30-70/2014-BSR	6.0 lakhs	Completed
2.	Spatial distribution of Uranium and associated ground water parameters in four districts (Sagar, Vidisha, Guna and Ashok Nagar) of Madhya Pradesh	BRNS	3 Years	36(4)14/13/2017-BRNS/36184	27.6 Lakhs	Ongoing
3.	MOOC on Chemistry of d-block elements, quantum chemistry and Spectroscopy	CEC	------	EMRC/SAG/18-19/03	13.5 Lakhs	Ongoing

PUBLICATIONS :

National Publications(Details of Research Papers):

2013	• Kumar, V; Upadhyay N, Singh S, Singh J, Kaur P, "Thin Layer Chromatography- A comparative estimation of Soil's atrazine", Current World Environment, 2013, 8(3), 469. • Kumar, V; Upadhyay N, Wasit A B, Singh J, Kaur P,"Specroscopic methods for detection of organophosphate pesticides- A preview", Current World Environment, 2013, 8(2), 313.
2014	• Kumar V, Upadhyay N, Kumar V, Kaur S, Singh J, Singh S, Datta, S "Environmental exposure and health risks of the insecticides monocrotophos- A review", Journal of Biodiversity and Environmental Science, 2014, 5(1), 111-120. • Kumar V, Kumar V, Upadhyay N, Sharma S, "Chemical, Biochemical and Environmental Aspects of Soil's Atrazine", 2014, 5, 149-165.

International Publications(Details of Research Papers):

2013	• Prasad R, **UpadhyayN**, KumarV. "Simultaneous determination of seven carbamate pesticide residues in gram, wheat, lentil, soybean, fenugreek leaves and apple matrices", **Microchemical Journal**., 2013; 111: 91-96. (Impact Factor: 3.206, Citation: **42)**
2015	• Kumar V, **Upadhyay N** "A review on sample preparation and chromatographic determination of Acephate and Methamidophos in different samples", **Arabian Journal of Chemistry**, 2015; 8(5), 624-631. (Impact Factor: 3.298, Citation: **31**). • Kumar V, Kumar V, **Upadhyay N**, Sharma S, Interactions of atrazine with transition metal ions in aqueous media: experimental and computational approach, **3Biotech**, 2015; 5(5): 791-798. (IF:1.786, Citation: 25) • Kaur A, Kumar V, Singh S, Singh J, **Upadhyay N**, Datta S, Singla S, Kumar V, Toll-like receptor-associated keratitis and strategies for its management, 3Biotech, 2015; 5(5): 611-619. (IF: 1.786 Citation: 04) • Kumar V, Singh S, Singh J, **Upadhyay N**. "Potential of Plant Growth Promoting Traits by Bacteria Isolated from Heavy Metal Contaminated Soils", ***Bulletin of Environmental Contamination and Toxicology***, 2015; 94(6): 807-814, 2015. (IF: 1.65, Citation: **50)**

	• Kumar V, **Upadhyay N**, Manhas A, "Designing, syntheses, characterization, computational study and biological activities of silver-phenothiazine metal complex", ***Journal of Molecular Structure***, 2015: 1099, 135-141. (IF: 2.011, Citation: 22)
2016	• Kumar V, Kaur S, Singh S, **Upadhyay N.** "Unexpected formation of N'-phenyl-thiophosphorohydrazidic acid O, S-dimethyl ester from acephate: chemical, biotechnical and computational study",**3Biotech**, 2016; 6(1): 1-11, 2016. (IF: 1.784, Citation: 34)
2017	• Wani AB, Chadar H, **Upadhyay N**, Salicylic acid to decrease plant Stress, ***Environmental Chemistry Letters*** 2017; 15(1): 101-123. (IF: 4.617, Citation: 29) • Kumar V, Singh S, Singh R, **Upadhyay N**, Singh J. "Design, synthesis, and characterization of 2, 2-bis (2, 4-dinitrophenyl)-2-(phosphonatomethylamino) acetate as a herbicidal and biological active agent", ***Journal of Chemical Biology***, 2017, 10: 179-190. (IF: 2.3, Citation: 31) • Wani AB, Singh J, **Upadhyay N**, "Synthesis and Characterization of Transition Metal Complexes of Para-Aminosalicylic Acid with Evaluation of Their Antioxidant Activities" ***Oriental Journal of Chemistry***, 2017; 33(3): 1120-1126. (IF: 0.65, Citation: 02) • Singh S, Kumar V, Upadhyay N, Singh J, Singla S, Dutta S, "Efficient biodegradation of acephate by Pseudomonas pseudoalcaligenes PS-5 in the presence and absence of heavy metal ions [Cu (II) and Fe (III)], and humic acid", ***3Biotech*** 2017; 7: 262. (IF: 1.784, Citation: 18) • Kaur S, Kumar V, Chawla M, Cavallo L, Poater A and Upadhyay N. "Pesticides Curbing Soil Fertility: Effect of Complexation of Free Metal Ions" ***Frontiers in Chemistry***. 2017; 5:43. (IF: 3.994, Citation: 24).
2018	• Kumar V,Chawla M, Cavallo L,Wani AB,Manhas A,Kaur SP, Poater A,Chadar H, and Upadhyay N. Complexation of trichlorosalicylic acids by alkaline and first row transition metals as a switch for their antibacterial activity", **InorganicaChimica Acta** 2018; 469: 379-386. (IF: 2.433, Citation: 14) • Kumar V, Singh S, Singh R, Upadhyay N, Singh J, Pant P, Singh R, Srivastava B, Singh A, Subhose V, Spectral, structural and energetic study of acephate, glyphosate, monocrotophos and phorate: an experimental and computational approach, ***Journal of Taibah University for Science***, 2018; 12(1): 69-78. (Cite score: 0.78; Citation: 11)
2019	• Kumar V, Singh S, **Upadhyay N**, Effects of organophosphate pesticides on siderophore producing soils microorganisms, ***Biocatalysis and Agricultural Biotechnology***, 2019, 21: 101359. (Cite score: 2.26, Citation: 00). • Sharma S, Sharma S, Upadhyay N, Modifier Based Enhancement in Physical and Chemical Properties of Bitumen (Brief Review), ***Oriental Journal of Chemistry***, 2019, 35(3): 997-1003. (IF: 0.65, Citation: 00) • Sharma S, Sharma S, Upadhyay N. Composition Based Physicochemical Analysis of Modified Bitumen by High-density polyethylene (HDPE) and Low-density polyethylene (LDPE), ***Biocatalysis and Agricultural Biotechnology,*** 2019; 35(3): 1167-1173. (IF: 0.65, Citation: 00)
2020	• Singh S, Kumar V, **Upadhyay N**, Singh J, The effects of Fe (II), Cu (II) and humic acid on biodegradation of atrazine, ***Journal of Environmental Chemical Engineering***, 2020, (2), 103539 (Cite score: 4.09, Citation: 01).
Chapters in Books	
	• Kaur SP, Wani AB, Kumar V, Sethi B, Upadhyay N, "Metal ion acquisition strategies by biosynthetic chealtes in plants" Ed: Manoj Kumar, "Phytomicrobiome in Stress Regulation", Springer. (Book Chapter accepted, other details not available yet)
National Seminar/Conference/Workshops (Attended)	
	• National Symposium on Horizons of Molecules, Materials and Daily Life at Dr. HarisinghGourVIshwavidyalaya, Sagar, Madhya Pradesh.
International Seminar/Conference/Workshops (Attended)	
	• Niraj Upadhyay, Vijay kumar, "Transforming Atrazine Towards Green Pesticide", (Poster presentation) in the 5th Asia Oceania Conference on Green and Sustainable Chemistry (AOC-% GSC), held at India Habitat Centre, New Delhi from 15-17 January organized by Royal Society of Chemistry (London), Green Chemistry Network Centre (New Delhi) and the Energy and Resource Institute (New Delhi).
National Seminar/Conference/Workshops (Organised)	
	• HemlataChadar and Niraj Upadhyay presented a poster entitled, "Role of Phenolic Compounds in Plants Growing under Heavy Metal Stress" in the symposium entitled, "Horizons of Light in Molecules, Materials and Daily Life" on December, 18-19, 2015.
	• HemlataChadar and Niraj Upadhyay presented a poster entitled, "Synthesis, Characterization, Antimicrobial Activity and Protein Binding Ability of metal chelates of Trichlorosalicylic Acid" in Science fair & National science day celebration - 2016 on the theme "Make in India : S & T driven Innovation" held on 4 th March 2016 in the Dr. Hari Singh Gour Vishwavidyalaya, Sagar (MP).
International Seminar/Conference/Workshops (Organised)	
	• Joint Secretary of "Science Fair and National Science Day-2016" from 26th February, 2016 to 4th March-2016 in the University on the theme "Make in India: S & T Driven Innovation."
Research Papers in Proceedings (International Seminar/Conference/Workshops)	
	• Kumar V, **Upadhyay N, "***Computational Chemistry: A preview of Density Functional Theory.* ICCS- WILKES100" – Second International Conference on Computing Sciences- 2013, pp 504, ISBN: 9789351071723 (Publisher Elsevier).
	• **Sharma S, Sharma S, Upadhyay N, "Properties Of Bituminous Binder Modified With Polyethylene", Second**

	International conference on Recent Advances in fundamental and Applied Sciences, Journal of Physics, Conference Series (Accepted), November 2019.
No. of Ph.D. Awarded:	04
No. of Ph.D. Scholars working:	02
Other Academic Achievements : Nil	
(i) Reviewer of the Journal(s) (With details of the journal(s) and duration)	
• Ecotoxicology and Environmental Safety (Elsevier) 2017-2020	
• MIcrobilological Research, Elevier, 2018-2020	
• *Journal of Obstetrics and Gynaecology,* Taylor & Francis, 2019	
• *Archieves of Aronomy and Soil Sciences,* Taylor & Francis, 2019	
• ACS Omega (American Chemical Society)- 2020	
• Chemical Engineering Journal, Elsevier, 2019-2020	
• Molecular Medicine Reports, 2019	
(ii) Membership of the Board of Studies/School Board / Academic Council/ Executive Council (Within/ outside the university)	
• Member, Board of Studies, Department of Chemistry, Chhindwara State University	