#### Dr. DEEPAK SINHA

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#### **Current Position**

- 1. Assistant Professor in department of Chemistry, Govt. Nagarjuna Post Graduate College of Science, G.E. Road Raipur, C.G. (Since Jan 2013)
- 2. Member of 'State Level Expert Appraisal Committee (SEAC) Chhattisgarh', Ministry of Environment, Forest and Climate Change, Govt. of India, from June 29, 2018 onwards vide notification no. 2421 in "The Gazette of India Part II-Section-3-Sub section (ii) dated June 29, 2018".

#### **Work Experience**

- 1. Worked as Senior Faculty of Chemistry in own institute SINHA'S CHEMISTRY CLASSES in Rajnandgaon (C.G.) for Guiding the Students Preparing for Various Competitive Examinations like IIT-JEE, AIPMT, PET, PMT, AIIMS, etc, (From July 1997 to December 2000).
- 2. Worked as Assistant Professor in Chemistry in Govt. Naveen Girls College, Raipur (C.G.), (From 22 January 2001 to 21 January 2002).
- 3. Worked as Assistant Professor in Chemistry in P N S College, Rajendra Nagar Bilaspur (C.G.), (From 01 July 2002 to 30 June 2006).
- 4. Worked as Senior Faculty of Chemistry in own institute CHEMISTRY ZONE in Raipur and Bhilai (C.G.) for Guiding the Students Preparing for Various Competitive Examinations like IIT-JEE, AIPMT, AIIMS, NET, SET, GATE, etc, (From July 2006 to December 2012).
- Member of 'State Level Expert Appraisal Committee (SEAC) Chhattisgarh', Ministry of Environment, Forest and Climate Change, Govt. of India, from February 04, 2015 to February 03, 2018 vide notification no. 292 in "The Gazette of India Part II-Section-3-Sub section (ii) dated – February 05, 2015".

#### **Educational Qualifications**

- 1. Ph.D. in Chemistry from Guru Ghasidas University, Bilaspur, (C.G.) in 2005 [Topic: Analysis of chemicals present in soil, water, plant and aquatic animals with special reference to industrial effluents and pollutional effects in Bilaspur district (C.G.)].
- 2. Masters of Science (Inorganic Chemistry) with 70.5% from Pt. Ravi Shankar Shukla University, Raipur, India,in 1996.
  - (1st Position in School of Studies in Chemistry).
- 3. Bachelor of Science (Chemistry, Botany and Zoology) with 68.5% from Pt. Ravi Shankar Shukla University, Raipur, India, in 1994.
- 4. Higher Secondary School Certificate (Physics, Chemistry and Biology) with 83.7% from Board of Secondary Education M.P., Bhopal, in 1991. (11th Position in Bio group in state merit list).

#### **Major Accomplishments**

- 1. NET" certificate issued by University Grant Commission & CSIR in 2001.
- 2. "SLET" certificate issued by Professional Examination Board MP in 1999.
- 3. Top 100 Rank in "GATE" Examination conducted by IIT Chennai in 1997.

### **Project Completed**

- 1. Principal investigator of the project, "Long-term measurement of  $PM_{2.5}$  and  $PM_{10}$  mass concentration: Variations and impact evaluation" Funded by Chhattisgarh Environment Conservation Board Project (Dec 2015 Dec 2017), Total funding 4 Lakhs.
- 2. Team member in a project: "Quality Checks of the Data and Instruments Working at Air Quality Monitoring Stations in Raipur City", Funded by Chhattisgarh Environment Conservation Board (CECB) to CSIR-National Physical Laboratory, (Dec 2016 March 2018), Total funding 29.4 Lakhs.

#### **Current Research Interest**

Air Quality Monitoring, PM<sub>2.5</sub> and PM<sub>10</sub> Source Apportionment Studies, Aerosol – Chemistry, Nano-Science.

#### **Current Ph.D. Students**

- 1. Ms. Jaya Dammani, "A Study on Online and Offline Measurements of PM<sub>10</sub> and PM<sub>2.5</sub> in an Urban City, Raipur", Registered in RDC, Pt. Ravi Shankar Shukla University, Raipur (25.07.2016)
- Ms. Monika Jain, "Physico-Chemical Studies on Micellar Solubilization of Diuretic Drugs by Conductivity & Surface Tension Measurements", Registered in RDC, Pt. Ravi Shankar Shukla University, Raipur (30.12.2016)
- 3. Ms. Sanyukta Patel, "Development of Nanoparticles as chemical Sensing Probes for Analysis of Environmental Samples", Registered in RDC, Pt. Ravi Shankar Shukla University, Raipur (05.01.2018)

### **List of Paper Publications/ Research Papers**

S.No.	Title of the Paper	Authors Name	Name of the Journal/ Vol./ PP/ Year and Doi (If Any)	ISSN No.	Whether Indexed in WoS or Scopus/ Listed in UGC/ Impact factor (If Any)	Remarks
1.	The Interrelationship between Cd <sup>2+</sup> and Pb <sup>2+</sup> Water Pollution and Blood Pressure in Fishes in Chhattisgarh Region	Sinha D., Dwivedi M.K. and Sharma S.	Asian Journal of Chemical and Environmental Research 5(3-4), 76-79, (2012)	0974- 3049	UGC approved (Journal No. 8773) Impact Factor - 0.039	First Author
2.	The impact of fly ash on photosynthetic activity and medicinal property of plants	Sinha D., Sharma S. and Dwivedi M.K.	Int. J. Curr. Microbiol. App. Sci. 2(8), 382-388, (2013)	2319- 7706	UGC approved (Journal No.44421)	First Author
3.	Seasonal variation of Physico- chemical properties of Arpa River in Chhattisgarh	Sinha D.	Journal of Applicable Chemistry 2(5), 1035-1048, (2013)	2278- 1862	UGC approved (Journal No. <b>62886</b> )	Single Author
4.	Cadmium Toxicity and Its Impact on Metabolic Activities in Fishes	Sinha D.	International Journal of Engineering Science Invention 2(9), 60-62, (2013)	2319- 6734	UGC approved (Journal No. <b>43302</b> )	Single Author
5.	Simple, Rapid and Sensitive UV- Visible Spectrophotometric Method for Determination of Anti- depressant Amitriptyline in Pharmaceutical Dosage Forms	Soni P., Sinha D., and Patel R.	Journal of Spectroscopy Volume 2013 doi:10.1155/2013/7834 57	2314- 4939	WoS and Scopus  UGC approved (Journal No. 20544)  Impact Factor- 0.761	_

6.	Traceability issue in PM <sub>2.5</sub> and	Aggarwal S.G.,	MAPAN	0970-	WoS and Scopus	
	PM <sub>10</sub> measurements	and Sinha D.	<b>28(3)</b> , 153-166,( <b>2013</b> )	3950(P)	UGC approved	-
			Doi: 10.1007/s12647- 013-0073-x	0974- 9853(e)	(Journal No. 3834) Impact Factor- 1.00	
7.	Biomass burning is a major source of particulate matter in Indian	Sinha D.	Journal of Applicable Chemistry	2278- 1862	UGC approved (Journal No. <b>62886</b> )	Single Author
	cities		<b>3(3)</b> , 1268-1271,( <b>2014</b> )			
8.	Aerosol effective density measurement using scanning mobility paricle sizer and quartz crystal microbalance with the estimation of involved uncertainity	Aggarwal S.G., and Sinha D.	Atmospheric Measurement Technique 9(3), 859, (2016) doi: 10.5194/amt-9- 859-2016	1867- 8548	WoS and Scopus  UGC approved (Journal No.1458)  Impact Factor- 3.50	-
9.	Recent development on the understanding of aerosol nucleation and growth	Sarangi B., Sinha D., Patel P. and Aggarwal S.G.	Indian Journal of Air Pollution Control 16(2), 61-75, (2017)	0250- 5231		-
10.	Postmonsoon evaluation of surface water with reference of statistical parameters of Korba district,	Vaishnav M.M., Janjayala R., Krishnamurthy	Indian Journal of Scientific Research 13(2), 68-74, (2017)	2250- 0138(e) 0976-	UGC approved (Journal No. 20876)  Impact Factor- 0.13	-
	Chhattisgarh, India	S. and Sinha D.	13(2), 08-74, (2017)	2876(P)	-	
11.	Role of MTHFR 667 C>T Polymorphism on blood homocystein and susceptibility to Hypertension	Dwivedi M.K. and Sinha D.	International Journal of Human Genetics, 17(3), 118-125, (2017)	2456- 6330	WoS and Scopus Impact Factor- 0.32	-
12.	The effect of physical activity on blood homocystein concentration	Sinha D. and Dwivedi M.K.	International Journal of Current Microbiology and Applied Sciences <b>6(9)</b> , 1206-1216, <b>(2017)</b>	2319- 7706	UGC approved (Journal No. 44421)	Corres. Author
13.	Physicochemical analysis of ground water of selected area of Raipur City	Jena V.K. and Sinha D.	Indian Journal of Scientific Research	2250- 0138(e)	UGC approved (Journal No. 20876)	Corres. Author
			<b>13</b> (1), 61-65, ( <b>2017</b> )	0976- 2876(P)	Impact Factor- 0.13	
14.	Ground water quality assessment by multivariate factor analysis	Jena V.K. and Sinha D.	Research Journal of Chemistry and Environment 21(8), 21-25, (2017)	0972- 0626(P) 2278- 4527(e)	Scopus  UGC approved (Journal No. 10451)  Impact Factor- 0.24	Corres. Author
15.	Label-free selective detection of Ampicillin drug in human urine samples using silver nano particles as a colorimetric sensing probe	Shrivas K., Sahu J., Pathik M. and Sinha D.	New Journal of Chemistry 41, 6685-6692, (2017) doi:	1369- 9261 (1144- 0546)	WoS and Scopus  UGC approved (Journal No. 37740) Impact Factor- 3.277	_
16.	Size-segregated sugar composition of transported dust aerosols from	Kumar S., Aggarwal S.G.,	10.1039/c7nj00448f Atmospheric Research	, in the second	WoS and Scopus	
	middle-east over Delhi during March 2012	Fu P.Q., Kang M., Sarangi B., Kotnala R.K. and Sinha D.	189, 24-32, (2017) doi:10.1016/j.atmosres. 2017.01.012		UGC approved (Journal No. 1450)  Impact Factor- 3.778	
17.	Physico-Chemical contamination of water in an around Central industrial areas of Bhilai, Durgdistrict C.G.	Sharma S., Tiwari K.K., Chatterjee S.K., Singh A. and Sinha D.	Asian Journal of Chemical and Environmental Research 10 (2017)	0974- 3049	UGC approved (Journal No.8773 ) Impact Factor- 0.039	Corres. Author

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18.	Quantification of Antimony by Spectrophotometric and Atomic Absorption Technique in Industrial Effluent	Agrawal V., Tiwari K.K., Chatterjee S.K. and Sinha D.	Asian Journal of Chemical and Environmental Research 10 (1-4), 67-72, (2017)	0974- 3049	UGC approved (Journal No. 8773) Impact Factor- 0.039	Corres. Author
19.	Assessment of heavy metals on environment and its impact on human health	Sinha D., Sharma S., Chatterjee S.K. and Tiwari K.K.	ActaCienciaIndica  XLIII C(4), 519-526, (2017)	0253- 7338	UGC approved (Journal No. 407)	Corres. Author
20.	Conductometric Studies on the Thermal Effects on Micellar Solubilization of Acetazolamide – A Diuretic Drug	Jain M., Chatterjee S.K. and Sinha D.	Journal of Ravishankar University-B 30 (1&2), 74-77, (2017)	0970- 5910	University Journal	Corres. Author
21.	Effect of Cadmium on metabolism- A study from coal field area	Sinha D., Pandey A.K. and Singh A.	Journal of Applicable Chemistry 7(1), 272-275,(2018)	2278- 1862	UGC approved (Journal No. <b>62886</b> )	Corres. Author
22.	Seasonal variations in mass concentration of PM <sub>10</sub> and PM <sub>2.5</sub> at traffic intersection and residential sites in Raipur city	Sinha D. and Dammani J.	Research Journal of Chemistry and Environment 22(1), 25-31, (2018)	0972- 0626(P) 2278- 4527(e)	Scopus  UGC approved (Journal No. 10451)  Impact Factor- 0.24	First and Corres. Author
23.	Aqueous Solubility Enhancement of Spiranolactone: Effect of Surfactant	Jain M., Chatterjee S.K. and Sinha D.	International Journal for Research in Applied Science & Engineering Technology 6(IV), 2922-2926, (2018)	2321- 9653	UGC approved (Journal No. 44382)	Corres. Author
24.	Toxicity and Behavioral Changes in Freshwater Fish Tilapia Exposed to Orient Paper Mill Effluent	Pandey N., Agrawal V. and Sinha D.	International Journal of Creative Research Thoughts 6(2), 1355-1358, (2018)	2320- 2882	UGC approved (Journal No. <b>49023</b> )	Corres. Author
25.	Antibacterial Activity of Some Cinnamo Hydroxamic Acid and their Derivatives	Rajput S.K., Bapat K.N., Patel A. and Sinha D.	International Journal of Green and Herbal Chemistry Sec. A; 7(2), 355-360, (2018)	2278- 3229	UGC approved (Journal No. <b>43786</b> )	Corres. Author
26.	Quantification of Cr (VI) by Spectrophotometric and Atomic Absorption Technique in Industrial Effluent	Tiwari K.K., Agrawal V., Chatterjee S.K., and Sinha D.	Journal of Environmental Science, Computer Science and Engineering & Technology Sec. A; 7(2), 279-287, (2018)	2278– 179X	UGC approved (Journal No. <b>47383</b> )	Corres. Author
27.	Solubility Enhancement of Furosemide in Micellar Solution of Cetyl Trimethylammonium Bromide	Jain M., Chatterjee S.K. and Sinha D.	European Journal of Biomedical and Pharmaceutical Sciences 5(5), 792-794, (2018).	2349- 8870	UGC approved (Journal No. 44779)	Corres. Author
28.	Studies on the Micellar Properties of Anionic Surfactant in the Absence and Presence of Spirono- lactone at Room Temperature	Jain M., Chatterjee S.K. and Sinha D.	International Journal of Current Advanced Research 7,4(F), 11685-11687, (2018)	2319- 6475 (e), 2319- 6505 (p)	UGC approved (Journal No. <b>43892</b> )	Corres. Author
29.	Mass Concentration of PM <sub>2.5</sub> During Diwali in Raipur	Sinha D. and Dammani J.	Indian Journal of Environmental Sciences 22(1), 50-53, (2018)	0971- 8958	UGC approved (Journal No. <b>47928</b> )	First and Corres. Author

30.	Periodic Water Quality	Sinha D., Jain	Journal of Applicable	2278-	UGC approved	First
	Monitoring of Ground Water in Jashpur District (C.G.) India	S.K., Mishra A.K., Dubey K.K. and Vaishnav	Chemistry 7(3), 668-675, (2018)	1862	(Journal No. <b>62886</b> )	Author
31.	Ambient Air Quality Status in an Industrial Area of Raipur City in the Year 2015	M.M. Patel A., Rajput S.K., Bapat K.N. and	Journal of Applicable Chemistry	2278- 1862	UGC approved (Journal No. <b>62886</b> )	Single Author
22		Sinha D.	<b>7(3)</b> ,647-653, ( <b>2018</b> )	2270	LICC 1	C
32.	Synthesis, Characterization and Antifungal Activity of p-CH <sub>3</sub> Benzyl and p-Cl Benzyl Cinnamo Hydroxamic Acids	Patel A., Rajput S.K., Bapat K.N. and Sinha D.	International Journal of Green and Herbal Chemistry Sec A, 7(3), 489-499, (2018)	2278- 3229	UGC approved (Journal No. <b>43786</b> )	Corres. Author
33.	A Case Study on the Seasonal and Spatial Variations in PM <sub>10</sub> and PM <sub>2.5</sub> in an Urban Environment of Raipur City	Sinha D. and Dammani J.	Indian Journal of Environmental Protection 38(11), 914-919, (2018)	0253- 7141	UGC approved (Journal No. <b>20768</b> )	First and Corres. Author
34.	Toxicity Evaluation of Metal in Groundwater of Central Industrial Area of Bhilai- Durg Twin City	Sharma S., Chatterjee S.K., Tiwari K.K. and Sinha D.	Journal of Emerging Technologies and Innovative Research 5(6), 553-556, (2018)	2349- 5162	UGC approved (Journal no. <b>63975</b> )	Corres. Author
35.	Interaction of Sitagliptin with Sodium Dodecyl Sulphate (SDS): A Physicochemical study.	Sinha D.	Asian Journal of Biochemical and Pharmaceutical Res 8(2), 20-23, (2018)	2231- 2560	UGC approved	Single Author
36.	Determination of Paracetamol in Industrial Effluents samples by the method followed spectro- photometer.	Agrawal V., Chatterjee S.K., Tiwari K.K. and Sinha D.	Asian Journal of Biochemical and Pharmaceutical Res 8(2), 67-71, (2018)	2231- 2560	UGC approved	Corres. Author
37.	Effect of Sitagliptin on micellization of Cetyl Trimethylammonium Bromide	Sinha D.	Int. Journal of Research and Analytical Reviews 5(2), 1612-1615, (2018)	2348- 1269(e) 2349- 5138(p)	UGC approved (Journal no. <b>43602</b> )	Single Author
38.	A case study on the comparison of PM <sub>2.5</sub> mass concentration measured by Beta Attenuation Monitor and Gravimetric Method	Sinha D.	Indian Journal of Environmental Protection 38(8), 683-686, (2018)	0253- 7141	UGC approved (Journal no. 20768)	Single Author
39.	Nighttime particle growth observed during spring in New Delhi: Evidences for the aqueous phase oxidation of SO <sub>2</sub>	Sarangi B., Aggarwal S.G., Kunwar B., Kumar S., Kaur K., Sinha D., Tiwari S. and Kawamura K.	Atmospheric Environment  188, 82-96, (2018)  Doi.org/10.1016/J.atmo senv.2018.06.018	1352- 2310(p) 1873- 2844(e)	WoS and Scopus  UGC approved (Journal No. 1455)  Impact Factor- 3.708	Co- Author
40.	Experimental and theoretical approaches for the selective detection of thymine in real samples using gold nanoparticles as a biochemical sensor	Shrivas K., Nirmalkar N., Thakur S.S., Kurrey R., Sinha D. and Shankar R.	RSC Advances  8, 24328-24337, (2018)  Doi: 10.1039/cBra02627k		WoS and Scopus  UGC approved (Journal No. 23625)  Impact Factor- 2.936	Co- Author
41.	Physico-Chemical analysis of drinking water quality of Bemetara town of Chhattisgarh state	Sinha D.	Int. Journal of Research and Analytical Reviews  5(3), 171-178, (2018)	2348- 1269(e) 2349- 5138(p)	UGC approved (Journal no. 43602)	Single Author
42.	Assessment of Physico-chemical Properties of Pond Water in Bemetara Town of Chhattisgarh State	Sinha D.	Journal of Emerging Technologies and Innovative Research 5(8),112-120,(2018)	2349- 5162	UGC approved (Journal no. 63975)	Single Author

# **Publications (Text Books)**

S.No.	Name of the Book	Name of Publisher	ISBN Number	Remarks
1.	Text Book of Chemistry Class XII (CBSE Syllabus)	Prabodh and Co. Pvt. Ltd. Raipur (C.G.)	978-93-82519-27-0	Main Author
		2018 (First Edition)		
2.	Rasayan Pathya Pustak, Class 12 <sup>th</sup> (CBSE Syllabus)	Prabodh and Co. Pvt. Ltd. Raipur (C.G.)	978-93-81516-38-6	Co-Author
		2018 (First Edition)		
3.	Saral Rasayan Digdarsika for Class 11 <sup>th</sup> NCERT Syllabus	Prabodh and Co. Pvt. Ltd. Raipur (C.G.)	978-93-85681-87-5	Co-Author
		2017 (First Edition)		
4.	Text-Book of Chemistry, Class 11th (CBSE Syllabus)	Prabodh and Co. Pvt. Ltd. Raipur (C.G.)	978-93-82519-46-1	Co-Author
		2017 (First Edition) 2018 (Rev. Edition)		
5.	Rasayan Pathya Pustak Class 11 <sup>th</sup>	Prabodh and Co. Pvt.	978-93-81516-37-9	Co-Author
	(CBSE Syllabus)	Ltd. Raipur (C.G.)	710 75 61516 57 7	
		2017 (First Edition)		
		2018 (Rev. Edition)		
6.	Rasayan Pathya Pustak Hindi Medium Class 11 <sup>th</sup> (State Board Syllabus) for Madhya Pradesh	Prabodh and Co. Pvt. Ltd. Raipur (C.G.)	978-93-81516-58-4	Single Author
		2013 (First Edition)		
		2014 (Rev. Edition)		
7.	Rasayan Pathya Pustak Hindi Medium Class 12 <sup>th</sup> (State Board Syllabus) for Madhya Pradesh	Prabodh and Co. Pvt. Ltd. Raipur (C.G.)	978-93-81516-57-7	Single Author
		2014 (First Edition)		
0	The Paris Color	2015 (Rev. Edition)	070 01 004547 0 0	G A 4
8.	Text- Book of Chemistry for B.Sc. I,II,& III	Prabodh and Co. Pvt. Ltd. Raipur (C.G.)	978-81-924547-8-8	Co-Author
			978-81-924547-7-1	
			978-81-924547-6-4	

# **Research Paper Presentations**

S. No.	Title of paper presented	Title of Conference / seminar etc.	Date of event	Organized By	Whether Internationa I/National/ State/ University or College level
1	Assessment of toxic elements like Pb <sup>2+</sup> Cd <sup>2+</sup> and Al <sup>3+</sup> in the Arpa river, Bilaspur (C.G.), All India Level	Seminar on Recent Advances in Chemistry Research,	November 18-20, 2001	Department of Chemistry, Govt. Art's Com. & Sc. College, Kota, Bilaspur (C.G.)	National
2	Impact of coal mining acxtivity on different aquatic system of Kusmunda area Korba	National Seminar on Chemistry in our Lives, Organized by	February 1-2, 2013	Department of Chemistry, Govt. E. Raghvendra Rao P.G. Science College, Bilaspur (C.G.)	National
3	Physical activity and blood homocysteine concentration	National Conference on Microbial Diversity: Exploration, Conservation & Application,	February 16–17, 2013	Department of Botany, Govt. E. Raghvendra Rao P.G. Science College, Bilaspur (C.G.)	National
4	The effect of heavy metal water pollution on blood glucose of fishes,	National Conference VIMARSH,	September 12-13, 2013	Department of Applied Chemistry, CHOUKSEY Engineering College, Bilaspur (C.G.)	National
5	The Zinc pollution in water and its effect on blood zinc concentration in human- A study from C.G. state,	National Conference VIMARSH	September 12-13, 2013	Organized by Department of Applied Chemistry, CHOUKSEY Engineering College, Bilaspur (C.G.)	National
6	Effect of toxic metal water pollution on humans in central India	National Seminar on Recent Advances in Meteorology, climatology & Environment	October 25, 2013	Centre of Inter- Disciplinary Studies, Bhilai Institute of technology, Raipur (C.G.), India	National
7	Effects of Cd <sup>++</sup> and Pb <sup>++</sup> in metabolic activities of some plants,	National Conference in Innovative Trends in Computer Science & Information Technology (ITCSIT),	February 8-9, 2014	Central College of Engineering & Management, Raipur	National
8	Association of MTHFR677t Polymorphism to hyperhomocysteiamia and susceptibility for stroke,	National Conference on INTEGRATIVE GENOMICS,	February 11- 12, 2014	Department of Biochemistry, Shri ShankaracharyaM ahavidyalaya, Sector-6, Bhilai	National
9	The association of IL- 1 beta with Pneumonia,	International Seminar on Utilization of Non-	March 21-22, 2015	Parthivi College of Engineering & Management,	International

		Conventional Energy Sources for Sustainable Development of Rural Areas,		Sirsakala, Bhilai-3	
10	Analytical assessment of GW & SW sources of BALCO industrial area, Korba (C.G.),	International Conference on Recent Trends in Science and Engineering (ICRTSE- 2016),	January 15-16, 2016	Department of Physics and Chemistry, Govt. V.Y.T.P.G. Autonomous College, Durg (C.G.) with IRD India, Bhubaneswar, Odhisha	International
11	Status of Air Quality in Raipur in the Year 2015, 2 <sup>nd</sup>	International Seminar on Utilization of Non- Conventional Energy Sources for Sustainable Development of Rural Areas,	March 17– 18, 2016	Parthivi College of Engineering & Management, Sirsakala, Bhilai- 3	Interational
12	Air- quality of Raipur city- A comparison between industrial and urban sites, Pradesh	National Conference (53 <sup>rd</sup> Annual Convention of Chemists 2016) in Analytical Chemistry & Environmental Chemistry Section,	December 27-29, 2016	Indian Chemical Society at GITAM University, Visakhapatnam, Andhra Pradesh	National
13	Estimation of the PM2.5 Central India,	National Conference on Soil Quality and Public Health (SQPH) Sponsored by UGC – CRO ( Bhopal), ,	January 17-18, 2017	Department of Chemistry, Govt. Digvijay Autonomous P.G. College, Rajnandgaon, Chhattisgarh	National
14	Study of air quality status in Urla & Siltara industrial area in Raipur city,	National Seminar on Advances in Environmental Science & technology, Sponsored by U.G.C., C.R.O., Bhopal, M.P.,	January 23–24, 2017	Department of Botany, Govt. Digvijay Autonomous P.G. College, Rajnandgaon, Chhattisgarh	National
15	Multivariate factor analysis and health risk assessment of fluoride in drinking water,	3rd International Seminar on Utilization of Non- Conventional Energy Sources for Sustainable Development of Rural Areas ISNCESR'17	March 24-25, 2017	Parthivi College of Engineering & Management, Sirsakala, Bhilai- 3	International
16	Assessment of iron contamination interpretation in road dust by monitoring data analysis,	National Seminar on Current Development of Environmental Sciences in Chhattisgarh State,	November 30-1 December 2017	Chhattisgarh Environment Conservation Board, Raipur &Bhilai Education Trust, Bhilai	National

#### Short Term Course/Training/Conference/Workshop/Seminar Attended

- One Week Short Term Course on Technical Launching on Environmental issues, June 26–30, 2013, Organized by Department of Biotechnology and Department of Chemistry, National Institute of Technology, Raipur
- National Workshop on Future Aspect: Forensic Science and Serology and Recent Advancement in Biological Science, December 16- 17, 2013, Organized by Department of Life Science, Shri Shankaracharya Mahavidyalaya, Sector-6, Bhilai (C.G.)
- National Symposium on Distributed Computing and Network Communication, January 30, 2015, Department of Information Technology and Department of Computer science, Govt. Nagarjuna Post Graduate college of Science, Raipur (C.G.)
- 4. One week Short Term Training Programme on Environment Challenges and Remedies May 25-29, 2015, Organized by Department of Chemical Engineering and Chemistry, National Institute of Technology, Raipur (C.G.)
- 5. RUSA Sponsored Workshop on Quality Education, June 23, 2015, Organized by Govt. N.P.G. College of Science, Raipur (C.G.)
- 6. RUSA Sponsored Workshop on Governance, Leadership & Management, June 24, 2015, Organized by Govt. N.P.G. College of Science, Raipur (C.G.)
- 7. RUSA Sponsored Workshop on Examination Reforms, June 25, 2015, Organized by Govt. N.P.G. College of Science, Raipur (C.G.)
- 8. RUSA Sponsored Workshop on Strategies development and deployment to achieve access, equity and excellence in higher system, June 26, 2015, Organized by Govt. N.P.G. College of Science, Raipur (C.G.)

- 9. RUSA Sponsored Workshop on Career Guidance, June 27, 2015, Organized by Govt. N.P.G. College of Science, Raipur (C.G.)
- 10. National Seminar on Enhancement Strategies in Quality Education and Research, November 27-28, 2015, Organized by Internal Quality Assurance Cell (IQAC), Govt. Nagarjuna Post Graduate college of Science, Raipur (C.G.)
- 11. Visited Delhi for discussion of issues related to PM<sub>2.5</sub> and PM<sub>10</sub> Sampling Protocols. Also about the Air Quality Data of Raipur City provided by Chhattisgarh Environment Conservation Board, Raipur, February 2– 5, 2016, Organized at CSIR- National Physical Laboratory, New Delhi- 110012
- 12. One Week Short Term Training Programme on Advances in Analytical Techniques in Chemistry and Material Science (AATCMS-2016), February 08–12, 2016, Organized by Department of Chemistry, National Institute of Technology, Raipur
- 13. Pre-Admet Workshop on Metrology in Chemistry: Ambient Air Quality Measurements, February 23, 2016, Organized at CSIR- National Physical Laboratory, New Delhi- 110012
- 14. 9<sup>th</sup> International Conference on Advances in Metrology (Admet-2016), February 24–26, 2016, Organized at CSIR- National Physical Laboratory, New Delhi- 110012
- 15. RUSA Sponsored Workshop on Strategies and Challenges in Implementing Extension of Higher Education and Improvement in Quality of Higher Education, June 20, 2017, Organized by Govt. N.P.G. College of Science, Raipur (C.G.)
- 16. RUSA Sponsored Workshop on Road Map of Quality Enhancement, June 21, 2017, Organized by Govt. N.P.G. College of Science, Raipur (C.G.)

- 17. RUSA Sponsored Workshop on Examination Reform, June 22, 2017, Organized by Govt. N.P.G. College of Science, Raipur (C.G.)
- 18. RUSA Sponsored Workshop on Strategies and Challenges in Implementing Semester System and Choice Based Credit (CBCS) System, June 23, 2017, Organized by Govt. N.P.G. College of Science, Raipur (C.G.)
- 19. UGC SAP (DRS II) National Conference on Advances In Environmental & Chemical Sciences, March 17-18, 2017, Organized by School of Studies in Chemistry, Pt. Ravi Shankar Shukla University, Raipur, Chhattisgarh
- 20. National Level Self- Sponsored Short Term Training Programme on Recent Trends in Material Science and Nano- Technology (MSNT-2017), October 3-7, 2017,Organized by Department of Chemistry, National Institute of Technology, Raipur (C.G.)

#### **Long Term Course/ Training Programme Attended**

- 1. Three week Participation in the Special Summer School (Equivalent to Refresher Course Vide Letter.....), July 08–28, 2013, Organized by Academic Staff College, Pt. Ravishankar Shukla University, Raipur (C.G.)
- 2. Four Week Orientation Program on Improving the Quality of Higher Education, June 3-30, 2016, Organized by Human Resource Development Centre, Pt. Ravishankar Shukla University, Raipur (C.G.)

#### **Resource Person/ Invited Talk**

- 1. Resource Person of Chemistry in EDUSAT NETWORK, State Council of Educational Research & Training Chhattisgarh (SCERT), Raipur (Dates-17/04/2013, 29/04/2013, 11/12/2013, 14/04/2015, 16/04/2015, 21/04/2015)
- Resource Person of Chemistry in Training for Teachers regarding New NCERT Syllabus. Organized by State Council of Educational Research & Training Chhattisgarh (SCERT), Raipur (Dates- 09/05/2017, 15/05/2017, 16/05/2017, 21/05/2017, 01/06/2018, 02/06/2018)

## Membership (Society)

- 1. Life member of Indian Chemical Society
- 2. Life member of Indian Aerosol Science and Technology Association.
- 3. Life member of Metrology Society of India.

Member of Academic Committee/Conference Committee, etc.