

RESUME OF DR. ALOK SINHA



1. **Name:** Dr. Alok Sinha

2. **Address (Office)**

Centre of Mining Environment
Department of Env. Science and Engg.
Indian School of Mines
Dhanbad-826004

(Residence)

D-16, Teachers Colony
Indian School of Mines
Dhanbad-826004

Phone: (0326) 2235610(O)

Fax: (0326) 2296624/2210028/2203042/2203080/2206319

Email: aloksinha11@yahoo.com; sinha.a.ese@ismdhanbad.ac.in

3. **Date of Birth:** August 11, 1969

4. **Present Designation:** Associate Professor

5. **Name of the Institution:** Indian School of Mines, Dhanbad-826004

6. **Academic Qualifications:**

(i) High School	1984	CBSE	Eng., Hindi, Maths, Science, So. Sci.	74.9%
(ii) Intermediate (10+2)	1986	AMU, Aligarh	Physics, Chem, Maths, Bio, Eng., Urdu	68%
(i) B. E.	1986-1990	Z.H.C.E.T., A.M.U., Aligarh	Civil Engg.	77.56%
(ii) M.E.	1990-1992	Z.H.C.E.T., A.M.U., Aligarh	Hydraulic Structures	82.6%
(iii) Ph.D.	2001-2007	IIT Kanpur	Environmental Engineering	8.81/10

7. **Field of Specialization:** Groundwater Remediation

8. **Fellowships/Awards/Distinction:**

- Awarded with MHRD Scholarship for M.E. after qualifying GATE, 1990 with an overall percentile of 93.2 (95.87 percentile in Civil Engg. & 80.2 percentile in Basic Sciences and Engineering)
- Ranked second in M.E. (Hydraulic Structures), 1990 batch with 82.6% marks at Z.H.C.E.T., A.M.U., Aligarh.
- Best paper award for paper titled "Predicting Long Term Performance of Cast Iron Permeable Reactive Barrier Treating 2-Chloronaphthalene" at National Conference on Environmental Conservation (NCEC 2006), Sept 1-3, 2006, BITS Pilani.

- Accredited by Quality Council of India-National Accreditation Board for Education and Training (QCI-NABET) as Functional Area Expert (FAE) for carrying out EIA for Water Pollution, Hydrogeology and Solid Waste.
- Received a **Certificate of Excellence** for his innovation “Utilization of Steel Waste for treating Pesticide Contaminated Groundwater” for Knimbus Young Innovator Award for the year 2013-14.
- Biography will appear in the “Marquis Who’s Who in the World 2016” (33rd Edition), USA

9. Position Held Earlier:

Employer	Position held	Date of Joining	Date of Leaving
JP Enterprises Ltd., JP Cement, Rewa	Senior Field Engineer	04.01.1993	16.12.1993
S.K. Saxena, Er. and Contr., Noida	Partner	25.12.1993	30.04.1995
J.K. Industries Ltd., Banmore	Civil Engineer	01.05.1995	28.02.1998
C.I.E. Ltd, Goa	Civil Engineer	20.03.1998	23.07.1998
SRMSCET, Bareilly	Lecturer	23.08.1998	26.06.2001
Harcourt Butler Technological Institute (HBTI), Kanpur	Assistant Professor	14.02.2007	31.03.2009
Indian School of Mines, Dhanbad	Assistant Professor	08.04.2009	05.09.2013
Indian School of Mines, Dhanbad	Assistant Professor (PB4)	06.09.2013	30.05.2016
Indian School of Mines, Dhanbad	Associate Professor	31.05.2016	Till Present

10. Paper Published

International Journal

1. Sinha, A. and Bose, P. (2006) “Dehalogenation of 2-chloronaphthalene by cast iron”. *Water Air and Soil Pollution*, 172 (1-4), pp. 375-390.
2. Sinha, A. and Bose, P. (2007) “Interaction Of 2-Chloronaphthalene with High Carbon Iron Filings (HCIF): Adsorption, Dehalogenation And Mass Transfer Limitations”. *Journal of Colloid and Interface Science*, 314 (2), pp. 552-561.
3. Sinha, A. and Bose, P. (2009) “Interaction Of Chloroethanes And Chloroethenes With Un-Rusted And Rusted High Carbon Iron Filings”. *Environmental Engineering Science*, 26(1), pp. 61-70.
4. Sinha, A. and Bose, P. (2009) “Interaction of 2,4,6-Trichlorophenol with High Carbon Iron Filings: Reaction and Sorption Mechanisms”. *Journal of Hazardous Materials*, 164(1), pp. 301-309.

5. Singh, G. and Sinha, A. (2011) “ Phytoremediation of Cr(VI) Laden Waste by *Eichhornia crassipes*” *Int. J. Environmental Technology and Management*, Vol. 14, Nos. 1/2/3/4, pp. 33-42. (ISSN (Online): 1741-511X - ISSN (Print): 1466-2132).
6. Sinha, A. and Bose, P. (2011) “2-Chloronaphthalene Dehalogenation by High Carbon Iron Filings (HCIF): Impact of Formation of Corrosion Products on HCIF Surface” *Environmental Engineering Science*, 28(10): 701-710.
7. Mishra, B.K., Gupta, S.K., Sinha, A. (2014) Human health risk analysis from disinfection by-products (DBPs) in drinking and bathing water of some Indian cities. *Journal of Environmental Health Science and Engineering*, 12 (1), art. no. 73.
8. Srivastava, R., Yadav, G.K., Sinha A. and Mishra B.K. (2014) “Comparative Study for Reduction of Hexavalent Chromium by High Carbon Iron Filings (HCIF) and Electrolytic Iron: Mass Transfer Limitations” *Asian Journal of Chemistry* 27 (4), 1398-1402, (IF 0.25).
9. Sinha A. and Bose P. (2014) Modeling of 2-chloronaphthalene interaction with high carbon iron filings (HCIF) in semi-batch and continuous systems, *Environmental Science and Pollution Research*, 21, [17](#), pp 10442-10452.
10. Mukherjee, R., Sinha, A., Lama, Y., Kumar, V. (2015) Utilization of Zero Valent Iron (ZVI) particles produced from steel industry waste for in-situ remediation of ground water contaminated with organo-chlorine pesticide heptachlor. *International Journal of Environmental Research*, 9 (1), pp. 19-26.
11. Pande, G., Sinha, A., Agrawal, S. (2015) Impacts of leachate percolation on ground water quality: A case study of Dhanbad city. *Global Nest Journal*, 17 (1), pp. 162-174.
12. Lama, Y., Sinha, A., Singh, G. (2015) Reductive dehalogenation of Aldrin by cast Iron. *Ecology, Environment and Conservation*, 21 (2), pp. 777-781.
13. Kumar, R., Sinha, A. (2016). Reductive transformation and enhancement in biodegradability of mono-azo dye by high carbon iron filings (HCIF). *Desalination and Water Treatment*, 57 (7), pp. 3205-3217.
14. Suman, S., Sinha, A., Tarafdar, A. (2016). Polycyclic aromatic hydrocarbons (PAHs) concentration levels, pattern, source identification and soil toxicity assessment in urban traffic soil of Dhanbad, India. *Science of the Total Environment*, 545-546, pp. 353-360.
15. Mukherjee, R., Kumar, R., Sinha, A., Lama, Y., Saha, A.K. (2016). A review on synthesis, characterization, and applications of nano zero valent iron (nZVI) for environmental remediation. *Critical Reviews in Environmental Science and Technology*, 46 (5), pp. 443-466.
16. Lama, Y., Sinha, A., Singh, G., Sahu, S.A., Mishra, B.K. (2016). Modeling the impacts of corrosion product formation on simultaneous sorption and reductive dehalogenation of organochlorine pesticide aldrin by high carbon iron filings (HCIF). *Desalination and Water Treatment*, 57 (16), pp. 7155-7165.

17. Lama, Y., Sinha, A., Singh, G., Masto, R.E. (2016). Reductive dehalogenation of endosulfan by cast iron: Kinetics, pathways and modeling. *Chemosphere*, 150, pp. 772-780.
18. Kumar, R., Sinha, A. (2016) Biphasic reduction model for predicting the impacts of dye-bath constituents on the reduction of tris-azo dye Direct Green-1 by zero valent iron (Fe⁰). *Journal of Environmental Sciences*, . **Article in Press**.
19. Kumar, R., Sinha, A. (2016) Impacts of dyebath auxiliaries on the reductive discoloration of Acid Orange 7 Dye by high carbon iron filings. *Water Science and Technology*. Available Online 23 June 2016, wst2016306; DOI: 10.2166/wst.2016.306.
20. Kumar, R., Sinha, A. (2016) Zero valent iron-mediated rapid removal of bis-azo dye in solution amended with dyebath additives: biphasic kinetics and modelling. *Korean Journal of Chemical Engineering*. **Accepted**.
21. Lothe, A.G., Sinha A. (2016). Development of model for prediction of Leachate Pollution Index (LPI) in absence of leachate parameters. *Waste Management*. [http://dx.doi.org/ 10.1016/j.wasman.2016.07.026](http://dx.doi.org/10.1016/j.wasman.2016.07.026). **Article in Press**

International Conference

1. Sinha A., Agrahari P.K. and Bose P., "Reductive Dechlorination of 2-Chloronaphthalene by Cast Iron", proceedings of International Conference on Hydrological Perspectives for Sustainable Development (HYPESD-2005), IIT Roorkee, Vol. II, pp 973-982, Feb 2005.
2. Agrahari P.K., Sinha A. and Bose P., "Application of Advanced Oxidation Processes for Degradation of Organic Micropollutants in Water- A Review", proceedings of International Conference on Hydrological Perspectives for Sustainable Development (HYPESD-2005), IIT Roorkee, Vol. II, pp 962-972, Feb 2005.
3. Sinha A. and Bose P., "Reductive Dechlorination Of 2,4,6-Trichlorophenol By Cast Iron", proceedings of International Conference on Environmental Management, JNTU, Hyderabad, October 2005.
4. Sinha A. and Bose P., "Enhancement in Reductive Dechlorination Of 2-Chloronaphthalene by Rusted Cast Iron", International Conference on Management of Water, Wastewater and Environment: Challenges for the developing countries, Sept 13-15, 2006, Nepal.
5. Sinha A. and Bose P., "Effect of Corrosion Product Development on Reductive Dehalogenation by Cast Iron Treating 2-Chloronaphthalene: Sorption and Reactivity", Environmental Research Event (ERE-2006), Dec 10-13, 2006, Macquarie University, NSW, Australia.
6. Sinha A. and Bose P., "Reactive Transport Of 2-Chloronaphthalene through Cast Iron Filings", International conference on Civil Engineering in the New Millenium: Opportunities and challenges (CENeM-2007), Jan 11-14, 2007, Bengal Engineering and Science University, WB, India.
7. Singh, G., Kakkar, D., Verma, P.K. and Sinha, A. "Discoloration of Azo-Dyes by Zero-Valent Iron", International Conference on Emerging Technologies in Environmental Science and Engineering, AMU, Aligarh, pp 55-62, Oct 26-28, 2009.
8. Sinha, A., Singh, G. and Srivastava, R. "Jharia Action Plan: An Opportunity for Roof Water Harvesting" Proceedings of International Conference on Water Harvesting, Storage and Conservation (WHSC-2009), IIT Kanpur, pp. 18-19, Nov. 23-25, 2009.
9. Srivastava, R.K. and Sinha, A. "Application of Zero-Valent Iron in Remediation of Chromium in Groundwater" International Conference on Recent Advances in Environmental Protection (RAEP-2009), St. John's College, Agra, pp 570-577, Dec. 17-19, 2009.
10. Singh, G., Sinha, A. and Srivastava, R. "Review on Endocrine Disrupting Chemicals: Remedial Options" Proceedings of International Conference on Environmental Health and Technology (EH&T 2010), CESE, IIT Kanpur, pp. 109, March 15-17, 2010.

11. Srivastava, R.K. and Sinha, A. "Modeling of Reduction of Chromium (VI) by Zero-Valent Iron" Proceedings of International Conference on Mother Earth: Save it for Future Generation (ICME 2010), University of Burdwan, Burdwan, pp 69, Feb. 13-15, 2010.
12. Sinha A. and Bose P., "Dehalogenation of 2-Chloronaphthalene with Un-Rusted HCIF in Semi-Batch and Continuous Systems", Proceedings of International conference on Environmental Science and Technology (ICEST 2010), Houston, Texas, USA, pp 30, July 12-16, 2010.
13. Srivastava, R.K., Singh, G. and Sinha, A. "Reduction of Chromium (VI) by Zero Valent Iron (ZVI): Impact of Chlorides" Proceedings of International conference on Environmental Science and Technology (ICEST 2010), Houston, Texas, USA, pp 30, July 12-16, 2010.
14. Kalra, S.S., Mohan, S. and Sinha, A. "Advanced Oxidation Processes for Treatment of Textile and Dye Wastewater: A Review" Proceedings of International Conference on Environmental Science and Development (ICESD 2011), Mumbai, pp 271-275, Jan 7-9, 2011.
15. Lama, Y. and Sinha, A. "Surfactant Enhanced Motility and Stability of nano-Zero Valent Iron (n-ZVI) for in-situ Remediation of Groundwater" Proceeding of International Conference on Climate change Forest Resource and Environmnet (ICCFRE-2011), pp 172, University of Kerala, Thiruvananthpuram, Dec 9-11, 2011.
16. Pande, G. and Sinha, A. "Impacts of Leachate Percolation on Ground Water Quality: A Case Study of Dhanbad City" Proceedings of International Congress of Environmental Research (ICER-11), SVNIT, Surat, December 15-17, 2011.
17. Sinha, A. "Insitu Remediation of Groundwater in Chromite Mining Areas by Nano Particles" Proceedsings of 4th Asian Mining Congress, pp 328-331, The Mining, Geological and Metallurgical Institute of India (MGMI), Kolkata, January 29-31, 2012.
18. Yadav, G.K. and Sinha, A. "Mass Transfer Limitations for Reduction of Chromium (VI) by High Carbon Iron Filings (HCIF)" Proceedings of International Conference on "Advances in Architecture and Civil Engineering (AARCV 2012)", pp 431-434, School of Architecture and Department of Civil Engineering, M.S.R.I.T., Bangalore, .June 21-23, 2012.
19. Mukherjee, R. and Sinha, A. "A Review on : Synthesis and Characterization of Nano Zero Valent Iron (nZVI)" Proceedings of 4th International conference of National Environmentalists Association on Anthropogenic Impact On Environment and Conservation Strategy, pp 162, Department of Zoology & Botany, St. Xavier's College, Ranchi, Nov 2-4, 2012
20. Kumar, R. and Sinha, A. "A Review on: Application of n-ZVI (Nano Zero Valent Iron) Technology for in-situ remediation of chromate contaminated ground water" Proceedings of 4th International conference of National Environmentalists Association on Anthropogenic Impact On Environment and Conservation Strategy, pp 148, Department of Zoology & Botany, St. Xavier's College, RanchiRanchi, Nov 2-4, 2012
21. Kumar, R. and Sinha, A. "Reductive degradation of mono-azo dye C.I. Acid orange 7 in aqueous solution by high carbon iron fillings(HCIF)" Proceedings of 4th International conference of National Environmentalists Association on Anthropogenic Impact On Environment and Conservation Strategy, pp 131, Department of Zoology & Botany, St. Xavier's College, Ranchi, Nov 2-4, 2012
22. Srivastava R.K., Yadav, G.K. and Sinha, A. "Comparative Study For Reduction Of Hexavalent Chromium By Electrolytic Iron And High Carbon Iron Filings (HCIF)" in Proceedings of Fifth International Groundwater Conference (IGWC-2012) on "The Assessment and Management of Groundwater Resources in Hard Rock Systems with Special Reference to Basaltic Terrain", Maulana Azad College of Arts, Science and commerce, Aurangabad, Maharashtra, India during 18-21 December, 2012.
23. Mukherjee, R., Sinha, A. and Kumar, V. "In-Situ Remediation of Groundwater by Nano Zero-Valent Iron (nZVI) Particles Extracted from Steel Industry Waste" in Proceedings of Sustainable Development Conference 2013: Green technology, renewable energy and environmmetal protection, organized by Tomorrow People Organization at Bangkok, Thailand, during 21st – 23rd June 2013.
24. Raja Kumar and Alok Sinha. "Cast iron filings for enhancing biodegradability of mono-azo dye" in Proceedings of International Conference on Health, Environment, and Industrial Biotechnology ICHEIB (Bio-Sangam 2013), organized by MNNIT, Allahabad during 21-23 Nov 2013.

25. Raja Kumar and Alok Sinha. "Decolourization of bis-azo dye Brilliant Crocein MOO solution by cast iron" in proceedings of 6th International Congress of Environmental Research (ICER 2013) organized by Maulana Azad College of Arts, Science & Commerce, Aurangabad, India, during December 19-21, 2013.

National Conference

1. Sinha A. and Bose P., "Zero-Valent Iron Mediated Dehalogenation of Chlorinated Organic Compounds", proceedings of National Conference on Advances in Environmental Science and Engineering, IIT Bombay, WW-02, December 2003.
2. Sinha A., Bose P. and Agrahari P.K., "Zero-Valent Iron: A Boon for remediation of Groundwater Pollution", proceedings of Workshop on Environmental Pollution: Perspectives and Practices, I.E.T. Lucknow, pp 193-197, April 2004.
3. Sinha A. and Bose P., "Predicting Long Term Performance of Cast Iron Permeable Reactive Barrier Treating 2-Chloronaphthalene", National conference on Environmental conservation (NCEC 2006), BITS Pilani, Sept 1-3, 2006.
4. Sinha A. and Kumar P., "Application of Nano-Technology in Remediation of Groundwater", proceedings of 4th National Seminar on Recent Strategies of Management, Technology and Environmental Control, pp 83-86, S.D.C.E.T., Muzafarnagar, Feb 9-10, 2008.
5. Gulati, P., Verma, P. K., Singh, G. and Sinha, A. "Assessment and Status of Battery Waste Management in Kanpur" proceedings of National Seminar on Electronic Waste (NASEW-10) NML, Jamshedpur, Jan 21-22, 2010.
6. Sinha A. "Disposal And Recycling of E-Waste In India: Impact Assessment", proceedings of National Conference on "Sustainable Management Of E-Waste" Dec 14-15, 2010, Bhaskaracharya College of Applied Sc., Univ. of Delhi, Delhi.
7. Lama, Y. and Sinha, A. "In-situ Remediation of Groundwater Contaminated with Organochlorine Pesticides" Proceedings of All India Seminar on Advances in Mine Production and Safety, pp 315 -326, CIMFR, Dhanbad, Aug 26-27, 2011.
8. Sinha, A. "Climate Change Impacts on Water Resources in India" Proceedings on Seminar on World Habitat Day-2011, Institution of Engineers, ISM, Dhanbad, October 17, 2011.
9. Lama, Y. and Sinha, A. "Zero Valent Iron: An Option for Treatment of Groundwater" Proceeding of National Seminar on Mining Equipment: New Technologies, Challenges & Applications (MENTCA 2012), pp 67-76, ISM, Dhanbad, January 19-21, 2012.
10. Kumar, R. and Sinha, A. "Advanced Oxidation Based Technologies for Treatment of Arsenic in Groundwater" Proceeding of National Seminar on Mining Equipment: New Technologies, Challenges & Applications (MENTCA 2012), pp 77-90, ISM, Dhanbad, January 19-21, 2012.
11. Yadav, G.K., Tomar, S. and Sinha, A. "Remediation of Hexavalent Chromium by High Carbon Iron Filings" Proceeding of National Conference on Recent Trends in Chemical Sciences, pp 39, Department of Applied Chemistry, BIT, Deoghar, February 18-19, 2012.
12. Kumar, R. and Sinha, A. "Treatment Of Textile Wastewater Containing Azo Dyes By Physical And Chemical Processes" in Proceedings of National Conference on Sustainable Development of Groundwater Resources in Industrial Regions (SDGRIR 2012), pp 130-139, ESE Department, ISM, Dhanbad, Mar 22-23, 2012.
13. Sharma, N., Agrawal, K., Sinha, A. and Mishra, B.K. "Groundwater Management in Mining Areas" in Proceedings of National Conference on Sustainable Development of Groundwater Resources in Industrial Regions (SDGRIR 2012), pp 152-156, ESE Department, ISM, Dhanbad, Mar 22-23, 2012.
14. Singh, P.K., Mishra, B.K., Gupta, S. K. and Sinha, A. "Distribution and Propagation of Arsenic in Indogangatic Plain and Removal Technology" in Proceedings of National Conference on Sustainable Development of Groundwater Resources in Industrial Regions (SDGRIR 2012), pp 176-183, ESE Department, ISM, Dhanbad, Mar 22-23, 2012.
15. Jha, P., Agrahari, A. and Sinha, A. "Errors Involved in the Estimation of Groundwater Quality Index" in Proceedings of National Conference on Sustainable Development of Groundwater Resources in Industrial Regions (SDGRIR 2012), pp 217-225, ESE Department, ISM, Dhanbad, Mar 22-23, 2012.

16. Kumar, R. and Sinha A. "Natural Adsorbents for Treatment of Textile Wastewater" Proceedings of national Seminar on Biodiversity: Its Conservation and Sustainable Development for Human Welfare, pp 41-42, University Department of Zoology, VinobaBhave University, Hazaribag, April 7-9, 2012.
17. Lama, Y. and Sinha A. "Interaction of Heptachlor with High Carbon Iron Filings (HCIF)" All India Workshop on Action Plan to Meet the Challenges of Water Crisis in Present Scenario, Institution of Engineers, Dhanbad, March 22, 2015.
18. Lama, Y. and Sinha A. "Interaction of Heptachlor with High Carbon Iron Filings (HCIF)" All India Workshop on Action Plan to Meet the Challenges of Water Crisis in Present Scenario, Institution of Engineers, Dhanbad, March 22, 2015.
19. Shahjad Ali, Sunil Kumar Gupta, Alok Sinha. Investigation of fluoride endemic areas and prevalence of fluorosis in BaroliAhir block of Agra District, Uttar Pradesh, India. In: National workshop on Challenges and Opportunities for Management of Water Supplies in Rural Areas (COMWRA 2015)", pp 130-135, ESE Deptt, ISM, Dhanbad 23-24 January 2015.
20. Raja Kumar, Alok Sinha "Rapid Discoloration of Tri-Azo Dye in Aqueous Solution using Micron Sized Cast Iron Particles in Batch Systems" In: National workshop on Challenges and Opportunities for Management of Water Supplies in Rural Areas (COMWRA 2015)", pp 196-200, ESE Deptt, ISM, Dhanbad 23-24 January 2015.
21. SahaSukla, Sinha Alok. Different Treatment Options for Acid Mine Drainage : A Review. In: National workshop on Challenges and Opportunities for Management of Water Supplies in Rural Areas (COMWRA 2015)", pp 201-208, ESE Deptt, ISM, Dhanbad 23-24 January 2015.
22. Abhrajyoti Tarafdar, Alok Sinha. Remediation of Anthracene: A short comparative study on Biological and Physicochemical approach. In: National workshop on Challenges and Opportunities for Management of Water Supplies in Rural Areas (COMWRA 2015)", pp 226-231, ESE Deptt, ISM, Dhanbad 23-24 January 2015.
23. Amal Krishna Saha, Alok Sinha. Review on Production of Various Types of Modified Nano Zero Valent Iron in Remediation of Contaminated Soil and Groundwater. In: National workshop on Challenges and Opportunities for Management of Water Supplies in Rural Areas (COMWRA 2015)", pp 237-243, ESE Deptt, ISM, Dhanbad 23-24 January 2015.

11. Books and Monographs

- Edited the proceedings of two days Faculty Development Programme on "Recent Strategies for Remediation of Environmental Pollution", Apr 25-26, 2008, HBTI, Kanpur.
- Edited the proceedings of two days National Conference on "Sustainable Development of Groundwater Resources in Industrial Regions (SDGRIR 2012)" Mar 22-23, 2012, ESE Department, ISM, Dhanbad.
- Edited the proceedings of 3-Day Training Program on "Water and Wastewater Treatment and Management" at ESE Deptt, ISM, Dhanbad, 7-9 November 2012.
- Edited the proceedings of 2 days National workshop on Challenges and Opportunities for Management of Water Supplies in Rural Areas (COMWRA 2015)" 23-24 January 2015, ESE Deptt, ISM, Dhanbad.

12. Member of Editorial Board

- International Journal of Water Resources and Environmental Engineering (IJWREE), Academic Journals
- African Journal of Environmental Science and Technology (AJEST), Academic Journals
- Science Journal of Environmental Engineering, <http://physicalscience.sciencejournals.cc>
- World Applied Sciences Journal (WASJ), ISSN: 1818 – 4952
- Associate Editor (ID: BIJ-ED-R1248) in Bonfring International Journal of Industrial Engineering and Management Science.

13. Invited Lectures Delivered/Panel participation

1. "Ground Water Pollution: Remedial Measures" at the Institution of Engineers (India), Kanpur Local Centre, Kanpur on 20th July 2007.
2. "Remediation of Groundwater by Zero-Valent Iron" In: Water-2007 held at C.S.A. University of Agriculture and Technology, Kanpur, May 10, 2007.
3. "Ground Water Pollution: Sources and Remediation" In: Faculty Development Program on "Water Resources and Environmental Management" held at Department of Civil Engineering, Bundelkhand Institute of Engg& Tech, Jhansi, November 27-28, 2007
4. "In-situ remediation of groundwater." In: Faculty Development Programme on "Recent Strategies for Remediation of Environmental Pollution" held at HBTI Kanpur, April 25-26, 2008.
5. "Biological Disasters: Bio-Terrorism" In: One week workshop on "Disaster Management and Mitigation" held at HBTI Kanpur, March 16-21, 2009.
6. "Ground Water Pollution: Remedial Measures" In: Afghanistan Training Program and Study Tour under World Bank aided Project on "Building Institutional Capacity for Sustainable Environment and Social Management in Mining Sector in Afghanistan", held at ISM, Dhanbad, December 29, 2009 to January 13, 2010.
7. "Management of Water Resources in Mining Industry" In: training program for SAIL Executives on "Environment and Ecology of Mines" held at Management Training Institute, Ranchi during June 13-15, 2011.
8. "Treatment and Disposal of Drilling Waste" In: Professional Development Program on "Drills And Drilling For Mineral Resources" held at ISM, Dhanbad, 26-30 September, 2011.
9. "Mass Transfer Limitations for Reduction of Chromium (VI) by High Carbon Iron Filings (HCIF)" In: Advances in Architecture and Civil Engineering (AARCV 2012) held at Department of Civil Engineering and School of Architecture, Bangalore/ June 21-23, 2012
10. "Design Of Water Treatment Systems" and "Operation And Maintenance Of Water Treatment Plants" In: 3-Day Training Program on "Water and Wastewater Treatment and Management" at ESE Deptt, ISM, Dhanbad, 7-9 November 2012.
11. "Treatment and Disposal of Drilling Waste" In: Two Weeks Short Course Programme On "Drills & Drilling For Mineral Resources" at MEMME Deptt, ISM Dhanbad, 12-24 November, 2012.
12. "Comparative Study For Reduction Of Hexavalent Chromium By Electrolytic Iron And High Carbon Iron Filings (HCIF)" In: Fifth International Groundwater Conference (IGWC 2012) at Maulana Azad College of Arts, Science & Commerce, Aurangabad, December 15-23, 2012
13. "In-Situ remediation of Groundwater Contaminated by Heptachlor using Nano Iron particles Extracted from Steel Industry Waste (S-nZVI)" at JNU, New Delhi/ June 5-6, 2013
14. "Lateral earth pressure and retaining structures" and "Case studies on Foundation Engineering" In: A Two-Week EDP Course on "GEOTECHNICAL ENGINEERING AND SOIL MECHANICS" at AGL Deptt, ISM, Dhanbad June 3-12, 2013
15. "In-Situ Remediation of Groundwater by Nano Zero-Valent Iron (nZVI) Particles Extracted from Steel Industry Waste" In: International Conference on "Sustainable Development Conference 2013 (SDC 2013) at Bangkok, Thailand/ June 21-23, 2013.
16. "Bioremediation of toxic effluents from Mining Areas" In: Program on "Mining Environment and Sustainable Development" for the Study abroad India Program for university of South Florida-St. Petersburg, Mining Deptt and ESE Deptt, ISM Dhanbad, 14th August 2014.
17. "Water Quality Management in Mining Areas" In: Two weeks training programme on "Mining Environment and Sustainable Development" for Afghanistan Officials sponsored by Ministry of External Affairs organized by ESE Deptt, ISM Dhanbad during 16-29 Aug, 2014.
18. "Application of nano technology for in-situ remediation of groundwater" In: Two weeks training programme on "Mining Environment and Sustainable Development" for Afghanistan Officials sponsored by Ministry of External Affairs organized by ESE Deptt, ISM Dhanbad during 16-29 Aug, 2014.
19. "Environmental Impact Mitigation Plans for Air, Water, Soil, Biodiversity, Socio-Economic Components of Environment" In: In: Two weeks training programme on "Environmental Impact Assessment of Mining Projects" for Afghanistan Officials sponsored by Ministry of External Affairs organized by ESE Deptt, ISM Dhanbad during 6-22 Dec, 2014.

20. “Water Pollution and its control Measures in coal Mining Areas” In: Training of Management Trainees (Environment Engineers) of Coal India Ltd. at Indian Institute of Coal Management (IICM) Ranchi, 3rd April 2015.

14. Membership of Professional Bodies

- Life Member, Indian Aerosol Science and Technology Association (IASTA).
- Senior Member, Asia Pacific Chemical, Biological, & Environmental Engineering Society (APCBEEES) (Member NO.: 100017).
- Life Member, Society of Applied Biotechnology (No.: LM-93/11).
- Life Member, Indian Water Works Association (IWWA) (LM-6954)
- Member, The Institution of Engineers (India) IEI (M-145454-9)
- Life Member, The Mining, Geological & Metallurgical Institute of India (MGMI) (No. 10154-LM, 2012-13).

15. Reviewer of International Journals

- Journal of Water and Health-IWA
- Journal of Hazardous, Toxic, and Radioactive Waste-ASCE
- Proceedings of the National Academy of Sciences, India Section A: Physical Sciences- Springer
- Journal of Chemical Technology & Biotechnology-Wiley
- Physical Chemistry Chemical Physics- RSC
- CLEAN-soil, air, water-Wiley
- Environmental Earth Sciences-Springer
- Journal of Environmental Management-Elsevier
- Pedosphere – Elsevier
- Science of the Total Environment- Elsevier

16. Research Projects

(i) Completed:

S.No.	Title	Capacity (PI/Co-PI/Member)	Funding Agency	Total Amount in Rupees
1	Reduction of Chlorinated Pesticides by Zero-Valent Iron (ZVI): Kinetics, Pathways and Long Term Performance	Principal Investigator	ISM Dhanbad	5.75 Lakhs/-
2	Regional Environmental Impact Assessment of Mining Regions of Goa	Member	MoEF	202 Lakhs

(ii) Ongoing:

S. No	Title	Capacity (PI/Co-PI/Member)	Funding Agency	Total Amount in Rupees
1	Remediation of Ground Water Contaminated with Hexavalent Chromium in Sukinda Valley, Odisha, Using Nano Zero Valent Iron (n-ZVI) Technology	Principal Investigator (Sanctioned)	Ministry of Environment, Forests & Climate Change	24.80 Lakhs

2	Control of Disinfection by Products formation in drinking water supplies of India	Co-PI	Department of Drinking Water and Sanitation, Ministry of Rural Development (GoI), New Delhi	25.20 Lakh
3	Influence of chlorine disinfectant and natural organic matter gradient on disinfection by-product formation in drinking water of some Indian cities	Co-PI	SERB-DST, New Delhi	20.60 Lakh

17. Details of Ph. D Supervision:

(i) No. of Ph. Ds Supervised/Awarded as Guide/Co-Guide:

S.No.	Student's Name	Joining Date	Thesis title	Date of Submission	Date of Award
1	Brijesh Kumar Mishra	14 th June 2011	Predictive Model Approach for Assessment of DBPs formation in Drinking Water	24.06.2014	Awarded on 03.12.2014
2	Yangdup Lama	30 th Sept 2010	Reduction of Chlorinated Pesticides by High Carbon Iron Filings (HCIF): Kinetics, Pathways and Long Term Performance	Submitted in January 2015	Awarded on 10.07.2015
3	Raja Kumar	13 th Dec 2010	Enhancing Biodegradability of Textile Effluents containing Azo-Dyes by Ozonation and High Carbon Iron Filings (HCIF)	Submitted in February 2015	Awarded on 21.09.2015

(ii) No. of Ph. Ds Supervising as Guide/Co-/Guide:

S.No.	Student's Name	Joining Date	Thesis title	Date of Submission	Date of Award of Ph.D. degree
1	R N Thakur	30 th July 2012	Investigation of Geo-engineering Properties of Fly Ash – Jute Reinforced Soil for Highway Construction	Continuing	NA
2	Sourav Kumar Mondal	25 th Feb 2013	Economical Treatment of Synthetic Pharmaceutical Wastewater by Combination of Physico-Chemical and Biological Methods	Continuing	NA
3	Abhrajyoti Tarafdar	24 th July 2013	Utilization of Municipal Solid Waste by microorganisms to produce precursors of biofuels	Continuing	NA

4	Ajay Kumar	24 th Mar 2013	Rational Evaluation of Concrete Structures by Non Destructive Tests (NDTs)	Continuing	NA
5	Shahzad Ali	26 th August 2013	Detailed investigation of Fluoride and its Control in Agra Region	Continuing	NA
6	Nitin Pratap Varma	3 rd June 2014	Synthesis of Biomimetic Nano-Hydroxyapatite and its Application in Removal of Heavy Metals from Waste Water	Continuing	NA
7	Amal Krishna Saha	11.07.2014	Application of Nano Zero-Valent Iron (Nzvi) for Dehalogenation of Organo Chlorine Pesticides in Sub-Surface Environment	Continuing	NA
8	Sukla Saha	11.07.2014	Treatment of Acid Mine Drainage by Innovative Physico-chemical Methods	Continuing	NA
9	Isha Burman	06.02.2015	Treatment of Synthetic Leachate by Combined Anaerobic MBR and CANON Process.	Continuing	NA
10	Neha	06.02.2015	Bio degradation of Pharmaceuticals in Soils through Solid State Fermentation (SSF)	Continuing	NA
11	Shivangi	16.7.2015	Zero valent iron assisted microbial degradation of hexavalent chromium	Continuing	NA

18. Consultancy Assignments

(i) Completed

S.No.	Title	Consultancy Number	Capacity (CI/Co-CI/Member)	Funding Agency	Total Amount in Rupees
1	Socio-economic Survey of Affected Families at Fire & Subsidence Areas in Jharia Coalfield	CONS/0925 /09-10	Member	JRDA 2009	36,26,451/-
2	Documentation of Thematic Cluster of Mining as per CSD guidelines	CONS/0975 /09-10	Member	MoEF	5,00,000/-
3	Baseline data generation for preparation of EIA/EMP of Damoda group of cluster I and madhuband NLW washery 5 MTY	CONS/1082 /10-11	Member	BCCL	8,16,220/-
4	Baseline Data Generation for preparation of EIA/EMP of Madhuband NLW Coal Washery (5 MTY) as per TOR granted by MoEF	CONS/1083 /10-11	Member	BCCL	5,84,590/-
5	Design of Particulate Emission Control System & Preparation of Environmental Management Plan for Coke Oven Plants in Dhanbad	CONS/1118 /10-11	Consultant Incharge (C.I.)	Six Individual coke Oven Plants, 2010	10,50,000/-
6	Design of Particulate Emission Control System & Preparation of	CONS/1116 /10-11	Member	Seven Individual	12,25,000/-

	Environmental Management Plan for Coke Oven Plants in Dhanbad			Coke Oven Plants, 2010	
7	Design of Particulate Emission Control System & Preparation of Environmental Management Plan for Coke Oven Plants in Dhanbad	CONS/1081 /2010-11	Member	Seven Individual Coke Oven Plants, 2010	12,25,000/-
8	Design of Particulate Emission Control System & Preparation of Environmental Management Plan for Coke Oven Plants in Dhanbad	CONS/1091 /2010-11	Member	Eight Individual Coke Oven Plants, 2010	14,00,000/-
9	Design of Particulate Emission Control System & Preparation of Environmental Management Plan for Coke Oven Plants in Dhanbad	CONS/1096 /2010-11	Member	Ten Individual Coke Oven Plants, 2010	17,50,000/-
10	Design of Particulate Emission Control System & Preparation of Environmental Management Plan for Coke Oven Plants in Dhanbad	CONS/1168 /2010-11	Member	Twelve Individual Coke Oven Plants, 2010	21,00,000/-
11	Rapid Comprehensive Environmental Audit of 4 x 250 MW OP Jindal Super Thermal Power Plant, Tamnar, District Raigarh	CONS/1238 /10-11	Member	Jindal Power Limited, 2010	2,75,750/-
12	Preparation of Pre-feasibility & Form 1 Report for coal washery of Kaphila Industries, Dhanbad	CONS/1333 /2010-11	Member	Kaphila Industries, Dhanbad, 2010	2,20,600/-
13	Study for compliance of Forestry Clearance Conditions in respect of Ghanoodih and Bera Projects of Bastacolla Area	CONS/1285 /10-11	Member	BCCL, 2011	12,68,450/-
14	Monitoring of Environmental Parameters in respect of Ambient Air, Noise, Stack Emission and Effluent of BTPS, Bokaro	CONS/1440 /2011-12	Consultant Incharge (CI)	BTPS, 2011	5,22,822/-
15	Rapid comprehensive Environmental Audit of 4x250 MW Jindal STPP, Tamnar, Raigarh, Chattisgarh	CONS/1631 /2011-12	Team Member	Jindal Thermal Power Plant, 2011	2,75,750/-
16	Preparation of Environmental Statement of DVC, Bermo Mines	CONS/1516 /2011-12	Team-Member	DVC, 2011	1,10,300/-
17	Environmental monitoring for Effluent discharge, stack emission and ambient quality monitoring for DVC, CTPS	CONS/1505 /11-12	Team-Member	DVC, 2011	1,00,373/-
18	Testing of groundwater samples for Heavy Metals (Fe, Mn, As and F)	CONS/1785 /12-13	Consultant Incharge (C.I.)	Central Ground Water Board (CGWB), Patna	30,719/-
19	Trace/Heavy Metal Analysis of Aqueous Liquid Samples from Indian Explosive Limited, Gomia, Bokaro, Jharkhand	CONS/1595 /11-12	Consultant Incharge (C.I.)	Indian Explosive Limited, Gomia,	11,030/-

				Bokaro, Jharkhand	
20	Monitoring of Environmental Parameters in respect of Ambient Air, Noise, Stack Emission and Effluent of BTPS, Bokaro	CONS/1817 /2012-13	Consultant Incharge (CI)	BTPS	5,32,587/-
21	3 Days training program for Junior and middle level Executives of DSWD, Ranchi on “Water and Wastewater Treatment and Management”	CONS/1970 /12-13	Co-CI	DSWD, Ranchi	1,57,175/-
22	Monitoring of Environmental Parameters in respect of Ambient Air, Noise, Stack Emission and Effluent of BTPS, Bokaro	CONS/2231 / 13-14	Consultant Incharge (CI)	BTPS, DVC	5,93,261/-
23	Design of Settling Pond at Ambuja cement Plant		Co-CI	Ambuja Cement	1,79,776/-
24	EIA Study on the impact of leaching due to storage of fly ash on the surface and mine voids of the dumping area of Hindalco, Muri, Rajrappa		Member	Hindalco	13,81,860/-
25	Monitoring of Environmental Parameters in respect of Ambient Air, Noise, Stack Emission and Effluent of BTPS, Bokaro	CONS/2705 / 14-15	CI	BTPS, DVC	5.56 Lakh
26	Environmental Monitoring of Stack, Ambient Air Quality, Water and Effluent samples for NTPC, Unchahar		Co-CI	NTPC, Unchahar	7.56 Lakh
4	Wastewater Management and Control of Water Pollution from Plant and Mines of Kirandul Complex (Rs. 14.0 Lakh Approx)		Member	NMDC	14 Lakh

(ii) Ongoing:

S.No.	Title	Cons No.	Capacity (CI/Co-CI/Member)	Funding Agency	Total Amount in Rupees
1	Feasibility Study of STP at West Bokaro Division		Co-CI	Tata Steel	15.16 Lakh
2	Geo Enviro study of abandoned mines for flyash backfilling		Co-CI	MPL Ltd	22.80 Lakh
3	Study on impact of mining activities on hydrology and hydrogeology of core zone covering all 5 underground mines of Tata Steel Ltd, Jharia Division.		Member	Tata Steel	8.99 Lakh
4	Wastewater Management and Control of Water Pollution from Plant and Mines of Kirandul Complex		CI	NMDC	15.10 Lakhs

5	Environmental Monitoring of Chandrapura Thermal Power Plant, Chandrapura, Jharkhand		Co-CI	CTPS	4.92 Lakh
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19. Seminar/Conferences/Short Term Courses Organized

- Volunteered in organizing annual IASTA meeting and International conference on “Aerosol clouds and Indian Monsoon” at IIT Kanpur, November 15-17, 2004.
- Co-convener for a two day Faculty Development Program on “Recent Strategies for Remediation of Environmental Pollution” held during 25-26 April, 2008 at Department of Civil Engineering, HBTI, Kanpur under TEQIP, World Bank.
- Co-convener for one week workshop on “Disaster Management and Mitigation” held during 16-21 Mar, 2009 at Department of Civil Engineering, HBTI, Kanpur under TEQIP, World Bank.
- Co-Organizing Secretary for two days National Conference on “Sustainable Development of Groundwater Resources in Industrial Regions(SDGRIR 2012)” Mar 22-23, 2012, ESE Department, ISM, Dhanbad.
- Co-CI for 3 days training programme Junior and Middle level Executives of Drinking Water and Sanitation Department on “Water and Wastewater Treatment and Management” held during 7-9 Nov. 2012.
- Co-CI for 3 days residential program on “Assessment of Water Quality and Low Cost Treatment methods for Rural Water supply” Oct 9-11, 2014.
- Co-cordinator for Two weeks training programme on “Environmental Impact Assessment of Mining Projects” for Afghanistan Officials sponsored by Ministry of External Affairs organized by ESE Deptt, ISM Dhanbad during 6-22 Dec, 2014.
- Organizing Secretary for National workshop on “Challenges and Opportunities for Management of Water Supplies in Rural Areas (COMWRA 2015)” Organized by ESE Deptt, ISM Dhanbad during 23-24 Jan, 2015.
- CI for 3 days training program on “Water Quality and Treatment” 28-30 Jan 2016, ISM Dhanbad.

20. Administrative Responsibilities Held/Continuing

- Examination Controller in S.R.M.S. College of Engineering and Technology, Bareilly from 1999-2001.
- Accounts Secretary for Married Students Welfare Committee (M.S.W.C.) from 2003-2004 at S.B.R.A., IIT Kanpur.
- Incharge, Summer Training, for III year B. Tech. Civil Engg. Students at HBTI Kanpur from 2007- Mar 2009
- Member, Research Council, Indian School of Mines, Dhanbad from Aug 2010
- Member, Moderation Board, Academic Council, Indian School of Mines, Dhanbad from Nov 2009-2011
- Faculty Incharge-Industrial Wastewater Treatment Laboratory, ESE Deptt, ISM Dhanbad since 2009.
- Faculty Incharge- Departmental Library, ESE Deptt, ISM Dhanbad since 2011.
- Secretary, Students Society of Environmental Science and Engineering (SESE) since 2012
- Faculty Incharge-Counselling Committee – I Year B Tech students ESE Deptt, ISM Dhanbad
- Faculty Incharge Feedback of I Yr B Tech First Year Students, since 2012, at ESE Deptt, ISM Dhanbad
- Member- Departmental Research Committee, since 2010, at ESE Deptt, ISM Dhanbad
- Member-Academic Council since 2009 at ISM, Dhanbad

(Alok Sinha)