

## CV OF Dr. S.K. Gupta

### 1. Name & Address:

Dr. Sunil Kumar Gupta  
Associate Professor  
Department of Environmental Science and Engg  
(Centre of Mining Environment)  
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### 2. Qualification

S.N.	Examinations/ degrees	Board / University/Institute	Year	Grade / Division
1	B.E. (Civil Engg.)	APS University Rewa	1994	First class
2	M.E. (Env. Engg.)	Jabalpur University	1997	First class
3	Ph. D. (Env. Sci. & Engg.)	IIT Bombay, Mumbai	2004	-

### 3. Employment Details:

Positions held	Organization/Institute	Duration
Senior Research Fellow	National Environmental Engineering Research Institute (NEERI), Nagpur	27-08-97 to 15-12-98
Research Associate (Part time)	IIT Bombay, Powai, Mumbai	28/12/98 to 27/12/99
Project Engineer	IIT Bombay, Powai, Mumbai	01/01/04 to 20/04/04
Sr. Lecturer	RBIT, Bhutan	24/04/04 to 15/08/05
Sr. Lecturer	ISM, Dhanbad	18/08/05 to 05/02/07
Assistant Professor	ISM, Dhanbad	06/02/07 to 05/02/10
Associate Professor	ISM, Dhanbad	06/02/10 till date
<b>Total Experience: 16 years</b>		

#### 4. R & D Project:

- **“Disinfection By-products Formation and its Management in Drinking Water Supplies of India”** sponsored by Department of Drinking Water and Sanitation, Ministry of Rural Development (GoI), New Delhi.
- **"Influence of chlorine disinfectant and natural organic matter gradient on disinfection by-product formation in drinking water of some Indian cities"**  
Sponsored by SERB-DST, New Delhi.
- **“Regional Environmental Impact Assessment of Mining Regions of Goa”**  
sponsored by Ministry of Environment and Forest (GoI), New Delhi.
- **“Baseline studies of Bandhuhurang and Bagjata Mines of UCIL, Jadugoda”**  
sponsored by Board of Research in Nuclear Studies (BRNS).

#### 5. Ph.D. Thesis Supervision (Completed/Ongoing)

S.N.	Title of Research	Guide/ Co-guide	Regular/ Part-time	Status
1.	Development of a Cost Effective Integrated Package for the Treatment of Coke Plant Effluents	Guide	Regular	Awarded 2012
2.	Biodegradation of Chlorinated Ethanes in Anaerobic Hybrid Reactor	Guide	Regular	Awarded 2013
3.	Predictive Model Approach for Assessment of Disinfection By-products Formation in Drinking Water	Guide	Part-time	Thesis Submitted
4.	Biodegradation of Antibiotic Residuals in the Effluent of Pharmaceutical Industry using Anaerobic Hybrid Reactor	Guide	Regular	ongoing
5.	Performance Evaluation of Anamox Hybrid Reactor for Removal of Ammonical Nitrogen from Wastewater	Guide	Regular	ongoing
6.	Microbial Reduction of Hexavalent Chromium from Mine water	Guide	Regular	ongoing
7.	Development of a cost effective Electro-chlorination system – Asustainable approach for drinking water disinfection	Guide	Regular	ongoing
8.	Development of Guidelines / Criterion for Design of tailing dams for Uranium Ore Mines	Guide	Part-time	ongoing

9.	Rational Evaluation of Concrete Structures by Non-Destructive Tests (NDTs)	Guide	Part-time	ongoing
10.	Detailed Investigation of Fluoride and Its Control In Agra Region	Guide	Part-time	ongoing
11.	Investigation of Geo-engineering Properties of Fly Ash – Jute Reinforced Soil for Highway Construction	Guide	Part-time	ongoing
12.	Studies of Geopolymer concrete using synergistically fly ash and bottom ash	Guide	Part-time	Ongoing
13.	Appraisal of Coalbed Methane Produced Water and Aquifer Impact Modeling in Raniganj Coalfield, West Bengal	Guide	Part-time	Ongoing

#### 6. Industrial Consultancy/Testing work done during the last 5 year

S. No.	Project Title	Name of Client	Role/Responsibility
	Environmental Monitoring of Chandrapura Thermal Power Plant, Chandrapura, Jharkhand	Chandrapura Thermal Power Plant	Consultant Incharge C.I.
1.	Environmental Monitoring of Stack, Ambient Air Quality, Water and Effluent samples for NTPC, Unchahar	NTPC, Unchahar	Consultant Incharge C.I.
2.	EIA studies 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	Hindalco, Muri	Co-Consultant Incharge (Co-C.I.)
3.	Study of Leaching of Heavy Metals	TISCO, Jamodoba	Consultant Incharge C.I.
4.	Effluent analysis as per EPA 1986	TISCO, Jamodoba	Consultant Incharge C.I.
5.	Effluent analysis as per EPA 1986 & IS 2296	TISCO, West Bokaro	Co-Consultant Incharge (Co-C.I.)
6.	Water quality analysis of Damoder river	Rites Limted,	Co-Consultant

		Kolkata	Incharge (Co-C.I.)
7.	Ground water quality analysis CCL Rajrappa area	CCL, Rajrappa	Co-Consultant Incharge (Co-C.I.)
8.	Effluent analysis of BCCL	BCCL, Dhanbad	Consultant Incharge C.I.
9.	Monitoring of Environmental Parameters in respect of Ambient Air, Ambient noise, Stack Emission and Effluents of BTPS “B”	BTPS, Damodar Valley Corporation, Bokaro	Co-Consultant Incharge (Co-C.I.)
10	Preparation of Environmental Statement of DVC, Bermo Mines	DVC, Bermo	Expert Member
11	Study for compliance of Forestry Clearance Conditions in respect of Ghanoodih and Bera Projects of Bastacolla Area	BCCL, Dhanbad	Expert Member
12	Regional Environmental Management Plan of Angul, Talcher and Meramundali Area	Orissa State Pollution Pollution Control Board	Expert Member
13	Preparation of Environmental Management Plan for NCPH and Kurassia Open-Cast Mines	SECL	Expert Member
14	Environmental Monitoring of Chandrapura Thermal Power Plant, Chandrapura, Jharkhand	Chandrapura Thermal Power Plant	Consultant Incharge C.I.

### 7. Training Programme, Seminars, Symposia, Workshops, conferences organized

SI No	Course Title	Client	Role/Responsibility	Date & Venue
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1.	3-Days Training Program For Executives Of Drinking Water and Sanitation Department, Ranchi on “ <b>Water And Wastewater Treatment And Management</b> ”	DDWS, Ranchi	<b>Coarse Co-coordinator</b>	7-9 November, 2012.
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## 8. RESEARCH PUBLICATIONS:

### Book Chapter

- Gupta, S.K., Gupta Sunil Kumar and Hung, Young-Tse (2004). "Treatment of Pharmaceutical Waste" In: Handbook of Industrial and Hazardous Waste Management, Second Edition, Ed. Lawrence K. Wang, Young-Tse, Hung, Howard H. Lo and Constantine Yapijakis, Marcel Dekker Inc., NY, USA. (3) 63-129.

### Research Papers in International Journals

1. B. K. Mishra; **S.K. Gupta**; Alok Sinha (2014). Human health risk analysis from disinfection by-products (DBPs) in drinking and bathing water of some Indian cities. **Journal of Environmental Health Science & Engineering** 2014 12:73. doi:10.1186/2052-336X-12-73.
2. Shibam Mitra\*, **S.K. Gupta** (2013). Biodegradation of tetrachloroethylene-rich synthetic wastewater in anaerobic hybrid reactor. **Desalination and Water Treatment**. doi: 10.1080/19443994.2013.770232.
3. Swati Tomar, **S.K. Gupta** (2013). Early start-up of Anamox Reactor...A Review. **Int. J. of Environmental Research and Development**, 3(4), 36-41.
4. Shibam Mitra, **S. K. Gupta** (2013). Pilot-scale treatment of a trichloroethylene rich synthetic wastewater in anaerobic hybrid reactor, with morphological study of the sludge granules. **Clean Techn Environ Policy**, DOI 10.1007/s10098-013-0695-2.
5. Shibam Mitra, **S.K. Gupta** (2012). Biodegradation of Trichloroethylene in Anaerobic Hybrid Reactor. **Environmental Progress & Sustainable Energy** Published online in Wiley Online Library (wileyonlinelibrary.com). DOI 10.1002/ep.11705

6. Chatterjee, Papia; Sharan, Richa; **Gupta, S.K.**; Wani, Khursheed Ahmad (2012). Performance of Anaerobic Batch Reactor for Removal of Cyanide from Coke Oven Effluent. **Asian J. Exp. Biol. Sci.**, **3(2)**, 259-266.
7. Srikanth Chandragupta Grandhi, Lopa Mudra Shashwat Pandey, **Sunil Kumar Gupta** and Gurdeep Singh (2011). Comparative evaluation of high rate anaerobic processes for treatment of distillery spent wash. **Journal of Industrial Research & Technology**, 1(1), xx-xx.
8. Basu M, **Gupta SK**, Singh G, Mukhopadhyay U (2011) Multi-route risk assessment from trihalomethanes in drinking water supplies. **Environ Monit Assess.** 178(1-4):121-34.
9. Sunil Kumar Gupta, S.K. Gupta, Gurdeep Singh (2010) Anaerobic hybrid reactor: a promising technology for treatment of distillery spent wash, **Environment and Pollution**, 43, 1/2/3, pp.221 – 235.
10. Richa Sharan, **Sunil Kumar Gupta** and Gurdeep Singh (2010). Removal of Cyanide from aqueous solution using Fly Ash. **Applied Environmental Sciences**, 5 (3) 463-473.
11. Mitra Shibam, **Gupta S.K.**, and Singh Gurdeep (2010). Anaerobic Pilot-Scale Treatment of a Tetrachloroethylene Rich Synthetic Effluent with Morphological Study of the Granules. **International Journal of Applied Environmental Sciences**. Volume 5 (5). Pp 749-763.
12. Richa Sharan, Gurdeep Singh and **Sunil Kumar Gupta**, (2009). Adsorption of phenol from aqueous Solution onto Fly Ash from a Thermal Power Plant. **Adsorption Science and Technology**, 27, (3), 267-279.
13. **Gupta, S.K.** and Singh, Gurdeep (2008). A Review of Municipal Solid Waste Generation and Characteristics in Indian Cities. **Int. Journal of Indian School of Mines III**, 25-34.
14. **Gupta, Sunil Kumar** and Gupta, S. K. (2007). Bio-degradation of Distillery Spent Wash in Anaerobic Hybrid Reactor. **Water Research**, (41) 721-730.

15. Singh, Gurdeep, **Gupta, S.K.**, Kumar, Ritesh, and Sunderarajan, M. (2007). Dispersion Modeling of Leachates from Ash Ponds of Thermal Power Plants. **Env. Engineering**, 133(12) 1088-1097.
16. **Gupta, S.K.** and Singh, Gurdeep (2007). Assessment of the Efficiency and Economic Viability of Various Methods of Treatment of Sanitary Landfill leachate". **Env. Monitoring and Assessment**, 135: 107-117.
17. Singh, Gurdeep, **Gupta, S.K.**, Kumar, Ritesh, and Sunderarajan, M. (2007). Mathematical Modeling of Leachates from Ash Ponds of Thermal Power Plants. **Env. Monitoring and Assessment**, 130 (1-3) 173-185.
18. Singh, Gurdeep, **Gupta, S.K.**, Kumar, Ritesh, and Sunderarajan, M. (2007). Dispersion Modeling of Leachates from Ash Ponds of Thermal Power Plants. **Env. Engineering**, 133(12) 1088-1097.
19. Gupta Sunil Kumar and **Gupta, S. K.** (2007). Anaerobic Hybrid Reactor - A Promising Technology for the Treatment of Distillery Spent Wash. **Int. J. of Indian School of Mines**. 2 (1) 25-38.
20. **Gupta, Sunil Kumar**, and Gupta, S.K. (2005). Morphological studies of granules in UASB and hybrid reactors. **Clean Techn. Environ. Policy**, (7) 203-212.

#### **Research Papers in International Conferences/Congress**

1. Mishra B K, **Gupta S K**, Sinha A, (2013). Significance and Importance of Water Quality Parameters for Predictive Modeling Approach of Disinfection Byproduct (DBP) in Drinking Water - A Review. **2nd Annual International Conference on Sustainable Energy and Environmental Sciences**. Singapore, 25-26 Feb.
2. Tomar Swati, **Gupta S.K.** (2013). Early start-up of Anmox Reactor – A Review. **Int. Conference on Sustainable innovative Techniques in Civil and Environmental Engineering** organised during 5-6 June, 2013, at JNU, New Delhi.
3. **Gupta, S.K.** (2012). Investigation of Low Cost Adsorbent for Removal Of Arsenic From Drinking Water. **Fifth International Conference in Ground**

**Water Conference (IGWC 2012)**, organised during December 18-21, 2012, at Aurangabad, Maharashtra, India

4. Kumari, Minashree, **Gupta, S. K.** (2012). Factors influencing the formation of disinfection by-products in Eastern part of India. **International conference on anthropogenic impact on environment and conservation strategy (AIECS 2012)**. Organised during 2-4 November, 2012, *Souvenir & Abstracts*. P-16.
5. Tomar Swati, **Gupta S.K.** (2012). Emerging Technologies for the removal of ammonical nitrogen from wastewater. **International conference on anthropogenic impact on environment and conservation strategy (AIECS 2012)**. Organised during 2-4 November, 2012, *Souvenir & Abstracts*. P-16.
6. Richa Sharan, **Sunil Kumar Gupta** and Gurdeep Singh, (2010). Adsorption of Cyanide from Aqueous Solution on Fly Ash. **International Conference on Mother Earth: Save it for future generation**, University of Burdwan, Burdwan, 13-15 Feb, 2010.
7. Mrityika Basu, **S.K. Gupta**, Gurdeep Singh, Ujjal Mukhopadhyay (2010). Estimation of potential cancer risk of trihalomethanes from drinking water supplies. **International Conference on 'Mother Earth: Save it for Future Generations'**, Burdwan University, 13-15 Feb, 2010.
8. Mitra Shibam, **Gupta S.K.**, and Singh Gurdeep (2010). Treatment of Tetrachloroethylene in Anaerobic Hybrid Reactor. **An International Perspective on Current & Future State of Water Resources & the Environment**, IIT Madras, 5-7 January, 2010.
9. Richa Sharan, Sunil Kumar Gupta and Gurdeep Singh (2010). Removal of Cyanide from aqueous solution using Fly Ash. **5<sup>th</sup> International Conference on Environmental Science and Technology**, Houston, Texas, 12-16<sup>th</sup> July, 2010.
10. Mrityika Basu, **S.K. Gupta**, Gurdeep Singh (2009). Chlorination by-product and their removal from drinking water. **ISA-RC-24-International Conference on water , Environment, Energy and Society**, Agra University, 28-30 June, 2009.



11. Mitra Shibam, **Gupta S.K.**, and Singh Gurdeep (2009). Characteristics of sludge granules treating trichloroethylene in anaerobic hybrid reactor. **International conference on recent trend in life science researches vis-a-vis natural resource management, sustainable and human welfare**, Vinoba Bhave University, Jharkhand, India, 27 to 29 June 2009, pp 116.
12. Mrityika Basu, **S.K. Gupta**, Gurdeep Singh (2009). Occurrence of Disinfection By-Products in drinking water supplies. **International Congress on Recent advances in Environmental Science and Technology**, BHU, 2-4 Nov, 2009.
13. Mitra Shibam, **Gupta S.K.**, and Singh Gurdeep. "Characteristics of Sludge Granules Treating Tetrachloroethylene in Anaerobic Hybrid Reactor". **International conference on emerging Technologies in environmental science and engineering**. Aligarh Muslim University, 26-28 October, 2009.
14. **Gupta Sunil Kumar** and Gupta, S. K. (2007). Treatment of Distillery Spent Wash in UASB and Hybrid Reactors. In Proc. of **Int. Conference on Environmental Science and Technology** held at Houston, Texas, USA on Aug. 6-9, 2007. 1, 304-311.
15. **Gupta, Sunil Kumar**, and Gupta, S.K. (2004). Anaerobic digestion of spent wash by hybrid and UASB reactor. **Int. Conf. "Anaerobic Digestion Congress-AD10"** Montreal, Canada. 809-814.

#### **Research Papers in National Journals/Conferences/Congress**

1. Kumari, Minashree., **Gupta, S.,K.** (2012).Disinfection by-products formation and their removals from drinking water- A review.UGC sponsored **National seminar on Biodiversity: Its conservation and sustainable development for human welfare**. Souvenir & Abstracts. P-74.
2. Kumari, Minashree., **Gupta, S., K.** (2012). Chlorination by-products formation and their removals from drinking water. National conference on environmental problems and their remedial measures (EPRM-2012). *Souvenir & Abstracts*. P-27.

3. Perween, Neha., **Gupta, S., K.** (2012). Current practices and future challenges in disinfection of water for controlling THMs. **National conference on environmental problems and their remedial measures (EPRM-2012)**, Souvenir & Abstracts. P-28.
4. Bhattacharya, Debleena., **Gupta, S., K.** (2012). Biodegradation of antibiotic residuals in the effluent of pharmaceutical industry- A review. UGC sponsored **National seminar on Biodiversity: Its conservation and sustainable development for human welfare. Souvenir & Abstracts.** P-66
5. Mitra Shibam, **Gupta S.K.**, and Singh Gurdeep (2010). Biodegradation of tetrachloroethylene in anaerobic hybrid reactor. **National Seminar on Electronic Waste (NASEW-2010)**, Jamshedpur, 21-22 January, 2010.
6. Mrityika Basu, **S.K. Gupta**, Gurdeep Singh, Ujjal Mukhopadhyay (2010). Factors Influencing The Formation Of Disinfection By-Products in Drinking Water Supplies in Eastern Part of India. **Workshop cum Seventeenth National Symposium on Environment (NSE-17)**, IIT Kanpur, 13 – 15 May, 2010.
7. **Gupta, Sunil Kumar**, and Gupta, S.K. (2003). “Treatment of Distillery Spent Wash by Hybrid and UASB Reactors”. **In National Conference on Advances in Environmental Science and Engineering**, Indian Institute of Technology, Bombay, Mumbai (8-9 December, 2003).

## 9. Membership of Professional Bodies

- Life Member (Reg. No. 10153) Mining Geology and Metallurgical Institute of India
- Life member (LM-7264) Indian Water Works Association
- Life Member, Administrative staff College of India, Hyderabad
- Life Member, of Environmental Science & Engg. Society, IIT, Powai, Mumbai

## 10. Recognition/Awards

- Achieved Young Scientist Paper Award for the best research in the Int. Conf. on Environmental Science and Technology held at Houston, Texas, USA on Aug. 6-9, 2007, organized by American Academy of Science.
- Awarded with MHRD Scholarship for M.E. (Env. Engg.) after qualifying GATE, 1995 at Govt. Engg. College, Jabalpur.

- Ranked First in M.E. (Env. Engg.), 1990 batch with 80.31 % marks at Govt. Engg. College, Jabalpur.
- Dr. S.K. Gupta visited University of Houston, Civil Engineering Department on 10/08/07 and Departments of Civil and Environmental Engineering, Southern Illinois University, USA and Tyco Electronic Corporation, Boston (MA) on regarding R & D, affiliation of Departmental to foreign University for advancement in R & D works, Labs upgradation and collaborations.

### 11. Administrative/Organisational/Committee work done:

<b>Department Level</b>
<ul style="list-style-type: none"> <li>• Incharge of Wastewater Engineering Lab, Fluid Mechanics Lab, Instrumentation Lab</li> <li>• Member of Departmental Research Committee</li> <li>• Member of Departmental Purchase Appraisal Committee</li> <li>• Organisation of 9<sup>th</sup> Professor S. K. Bose Memorial Lecture</li> <li>• Co-Coordinator for B.Tech (Env.Eng.)</li> <li>• Member of DRC of Civil Engg Dept.</li> <li>• Faculty member &amp; Head (CD), Civil Engg Dept.</li> </ul>
<b>Institute Level</b>
<ul style="list-style-type: none"> <li>• Member of Selection Committee for recruitment of Assistant/EE Engineer of CMU, ISM Dhanbad</li> <li>• Member of Selection Committee for recruitment of Junior Engineer of CMU, ISM Dhanbad</li> <li>• Member of Selection Committee for recruitment of Project Assistant Level I and II Engineer Group –III(4) at CIMFR, Dhanbad on 13/02/2013</li> <li>• Member of Selection Committee for recruitment of Assistant and Executive Engineer Group –III(4) at CIMFR, Dhanbad on 27/08/2012</li> <li>• Member of Assessment Committee for assessment of Group –III(3) to Group (6) Technical Officer at CIMFR, Dhanbad on 26/04/2013</li> <li>• Member of committee constituted for finalization of course structure for 5 year integrated M. Tech course in civil Engg at BIT, Sindary, Dhanbad 25/03/2013</li> <li>• Member of Selection Committee for Recruitment of JRF of ESE Dept.</li> <li>• Member of handing taking over of civil works at ISM Dhanbad</li> <li>• Member of Tender Opening &amp; Negotiation Committee for Civil &amp; Electrical Works</li> <li>• Member of Scrutiny Committee for Civil &amp; Electrical Works</li> </ul>