CV of Dr. S. R. Samadder

Email ID: samadder.sr.ese@ismdhanbad.ac.in
sukh_samadder@yahoo.co.in
Contact No. Mobile: (+91) (9471191823)

CONTACT ADDRESS:
Dr. Sukha Ranjan Samadder
Assistant Professor
Department of Environmental Science & Engineering
Indian School of Mines, Dhanbad
Pin-826004

Nationality: Indian

EDUCATIONAL QUALIFICATIONS:

Degree / Examination	University / Institution	From and To	Specialization
Postdoctoral Studies	University College Dublin, Ireland	Jan, 2008 to Jan, 2010	Environmental Spatial Analysis
Ph. D	IIT Kharagpur	July, 2001 to June, 2005	Environmental Engineering
M. Tech.	IIT Roorkee	July, 1999 to Feb, 2001	Environmental Engineering
B. Tech	NIT Surat	July, 1995 to June, 1999	Civil Engineering

EXPERIENCE

University / Organization	Designation	From	To	Nature of Experience
ISM Dhanbad	Assistant Professor	6th January, 2012	Till Date	Teaching & Research
NIT Bhopal, MP	Assistant Professor	19th January, 2010	3rd January, 2012	Teaching & Research
University College Dublin, Ireland	Marie Curie Experienced Postdoctoral Fellow	14th January, 2008	11th January, 2010	Research, Mentoring UG & PG Students, Teaching
NIT Bhopal, MP	Assistant Professor	1st January, 2006	30th November, 2007	Teaching & Research
NIT Bhopal, MP	Lecturer	10th August, 2005	31st December, 2005	Teaching & Research

Teaching Experience:

Subjects Taught:

- Water Supply and Treatment (M. Tech level)
- Environmental Laws, Impact Assessment and Auditing (M. Tech Level)
- EIA (B. Tech level)
- Environmental Geotechnology (B. Tech Level)
- Environmental Hydraulics (B. Tech level)
- Principle and Design of Water Supply System (B. Tech level)
- Applications of GIS and Remote Sensing in Precision Agriculture (Graduate course in UCD, Ireland)

Details of Ph. D students Guided/Continuing

S. No	Name of Student	Year	Title of the Dissertation
1.	MS. DEBISHREE KHAN	Awarded (2015)	Evaluating the Scenario and Options of Solid Waste Management Using Geographical Information Systems (GIS): A Case Study of Dhanbad City, in Jharkhand, India
2.	MR. ASHVANI KUMAR	2012 - Ongoing	Analysis of Contaminant Transport from Coal-fired Thermal Power Plant in Soil, Surface Water, and Groundwater
3.	MS. SNEHLATA	2013 - Ongoing	Study on Feasible Arsenic Removal Techniques from Groundwater for Rural Areas
4.	MS POOJA YADAV	2013-Ongoing	LCA of Solid Waste Management
5.	MR. SHIVESH KISHORE KARAN	2014-Ongoing	Study of the Transport and Fate of Contaminants due to Coal Mining for Better Water Management Practices
6.	MR. ROSHAN PRABHAKAR	2015-Ongoing	Assessment of the Field Applicability of Nano-Adsorbents for Arsenic Removal from Ground water
7.	MR. ATUL KUMAR	2015-Ongoing	Evaluating the Energy Recovery Potential for Better Management of Municipal Solid Waste

Details of M. Tech students guided/Continuing

S. No	Name of Student	Year of Passing	Title of the Dissertation
1.	MR. NARESH THAKRE	2006	Ambient Air Pollution Status and Health Risk of Bhopal City
2.	MR. RAVI KANT SHARMA	2007	Analysis of Solid Wastes and Design of Sanitary Landfill for Bhopal City

3.	MR. RAJEEV SINGH PARIHAR	2007	Route Analysis for Solid Waste Collection in Bhopal City Using GIS
4.	MR. RAM LAKHAN RAJPUT	2007	Performance Evaluation of UASB Reactor Installed at Bhopal
5.	MR. ABHIJEET DIJGAVNE	2012	Landfill site selection using GIS
6.	MR. ANIL AMRAWANSHI	2012	Effect of Municipal Solid Waste (MSW) Dumping on Physical and Chemical Properties of Soil and Water
7.	MR. PRAMOD KUMAR SINGH	2013	Study on Locally Available Adsorbents for Removal of Arsenic from Groundwater
8.	MR. NEERAJ KUMAR SAURABH	2013	Status of Groundwater Arsenic Pollution and its Impact in Sahibganj District, Jharkhand
9.	SHIVESH KISHORE KARAN	2014	Impact of Coal Mining on Surface Water Using Remote Sensing and GIS: A Case Study
10.	RAVI KUMAR	2014	Arsenic Removal
11.	RASHDA KHANAM	2014	Spatio-temporal Change Analysis of Vegetation Cover in Jharia Coalfield
12.	ADARSH KUMAR	2015	Reduction of Groundwater Contamination Using Alternative Overburden Dump Management
13.	SHRUTI	2015	Assessment of Accuracy of the Landuse Classification in Coal Mining Areas Using Remote Sensing and GIS
14.	ATUL KUMAR	2015	Impact of Socioeconomic Parameters on Generation and Characteristics of Municipal Solid Waste
15.	GAURAV VILAS KAPSE	2016	Performance of *Moringa Oleifera* Seed as a Coagulant for Removal of Fine Particles from Coal Washery Effluent
17.	GAURAV MOHANTY	2016	Impact of land use pattern on soil erosion into Panchet Reservoir, Jharkhand, India
18.	VIVEK SINGH	2016	Assessment of the Groundwater Pollution Potential due to Coal Mining in Jharia Coal Field
19.	RAJESH BARANWAL	2016, *Ongoing*	Assessment of Physico-Chemical Properties of OB Soil for Reclamation and Monitoring Phenological Changes through Remote Sensing
20.	NITIN KUMAR	2016,	Identification of Recycling and Recovery

		Ongoing	Routes of Plastic Waste for its Better Management: A case Study of Dhanbad City.
21.	JYOTSANA	2016, *Ongoing*	Synthesis of Nano Adsorbents for Arsenic Removal

Details of Invited Lectures

S. No	Name of the Course	Date	Lectures	Place
1.	3-day training program on Water and Waste water Treatment and Management for the Executives of Drinking Water & sanitation Department (DWSD), Ranchi	8.11.2012	Operation and Maintenance of Wastewater Treatment Plants	ISM Dhanbad
2.	A Two-Week EDP Course on "GEOTECHNICAL ENGINEERING AND SOIL MECHANICS"	7.6.2013	1. Types of Foundation 2. Selection of Foundation Types	ISM Dhanbad
3.	Three Days Programme on "Environmental Impact Assessment & Auditing"	27.06.2013 to 29.06.2013	EIA Methods for Coal Mining	Sambalpur, Orissa
4.	Two-Weeks Training Programme on Mining Environment & Sustainable Development (16.08.2014 TO 01.09.2014)	23.08.2014	Solid and Hazardous Waste Management Issues in Mining Industries	ISM Dhanbad
5.	3-Day Residential Training Program on "Assessment of Water Quality and Low Cost Treatment Methods for Rural Water Supply"	15.10.2014 and 16.10.2014	1. Low cost treatment method for removal of arsenic and fluoride from water 2. Laboratory Visit and Hands-on Experience for Measurement of Water Quality Parameters	ISM Dhanbad
6.	Two-Week Training Programme on Environmental Impact Assessment of Mining Projects for Officials of Ministry of Mines, Government of Afghanistan (6th December 2014-22nd December 2014)	09.12.2014	Model Terms of Reference For Mining Projects	ISM Dhanbad

R & D Project: List of R & D projects

S.No.	Name of the Project	Funding agency	Amount (Lakh)	Status	Role
1.	Investigation and analysis of the	ISM Dhanbad	0.985	completed	PI

	status of arsenic pollution in groundwater of Sahibganj district, Jharkhand				
2.	Arsenic Removal from Groundwater Using Nano-adsorbents	DST	5.50	Ongoing	PI

Major Consultancy Projects

S. No	Period	Organization	Nature of Work	Status
1	December 2013 to May 2015	NMDC, Kirandul, CG	Setting up suitable Municipal Solid Waste Management Technique for BIOM, Kirandul Complex, Dist. South Bastar Dantewada (C. G).	Ongoing
2	June 2011 to December	Municipal Corporation, Bhopal, MP	Geo-environmental Investigation of Solid Waste Dumping Site, Bhopal, MP	Completed
3	June 2011 to December	Municipal Corporation, Jabalpur, MP	Geo-environmental Investigation of Solid Waste Dumping Site, Jabalpur, MP	Completed

LANGUAGE PROFICIENCY: Bengali, English, Hindi

Membership of Professional Bodies:

1. Life Member of Mining, Geological and Metallurgical Institute of India (MGMI).
2. Life Member of Indian Society of Remote Sensing

PUBLICATIONS:

International Referred Journal

1. Karan, S. K., and **Samadder, S. R. (2016).** "Accuracy of Land use Change Detection using Support Vector Machine and Maximum Likelihood Techniques for Open Cast Coal Mining Areas". **Environmental Monitoring and Assessment**, *In Press.* **Impact Factor: 1.633**

2. Kumar, A., **Samadder, S. R**. and Elumalai, S.P., (**2016**). "Recovery of trace and heavy metals from coal combustion residues for reuse and safe disposal: A Review." JOM, DOI: 10.1007/s11837-016-1981-3 (In print) **Impact Factor: 1.798**

3. Karan, S. K., and **Samadder, S. R.** (**2016**). "Reduction of spatial distribution of risk factors for transportation of contaminants released by coal mining activities." Journal of environmental management, 180, 280-290. **Impact Factor: 3.131**

4. Khan, D., and **Samadder, S. R.** (**2016**). "Allocation of solid waste collection bins and route optimisation using geographical information system: A case study of Dhanbad City, India." Waste Management & Research, doi: 10.1177/0734242X16649679. **Impact Factor: 1.297**

5. Khan, D., Kumar, A., and **Samadder, S. R.** (**2016**). "Impact of socioeconomic status on municipal solid waste generation rate." Waste Management, 49, 15-25. **Impact Factor: 3.829**

6. Lata, S., and **Samadder, S. R.** (**2016**). "Removal of arsenic from water using nano adsorbents and challenges: a review." Journal of environmental management, 166, 387-406. **Impact Factor: 3.131**

7. Khan, D., and **Samadder, S. R.** (**2015**). "A simplified multi-criteria evaluation model for landfill site ranking and selection based on AHP and GIS." Journal of Environmental Engineering and Landscape Management, 23(4), 267-278. **Impact Factor: 0.591**

8. Kumar, A., and **Samadder, S. R**. (**2015**). "Analysis of the leaching behavior of elements from coal combustion residues for better management." Environmental monitoring and assessment, 187(6), 1-12. **Impact Factor: 1.633**

9. Lata, S., Singh, P. K., and **Samadder, S. R**. (**2015**). "Regeneration of adsorbents and recovery of heavy metals: a review." International Journal of Environmental Science and Technology, 12(4), 1461-1478. **Impact Factor: 2.344**

10. **Samadder, S. R.**, Nagesh Kumar, D., and Holden, N. M. (**2014**). "An Empirical Model to Predict Arsenic Pollution Affected Life Expectancy." Population and Environment, 36(2), 219-233. **Impact Factor: 1.609**

11. Debishree Khan and **S. R. Samadder (2014)**. "Application of GIS in Landfill Siting for Municipal Solid Waste." International Journal of Environmental Research and Development. ISSN 2249-3131, 4(1), 37-40.

12. Sneh Lata and **S. R. Samadder (2014)**. "Removal of Heavy Metals Using Rice Husk: A Review". International Journal of Environmental Research and Development. ISSN 2249-3131, 4(2), 165-170.

13. Debishree Khan and **S. R. Samadder (2014)**. "Municipal solid waste management using Geographical Information System aided methods: A mini review." Waste Management and Research, 32(11), 1049-1062. **Impact Factor: 1.297**

14. Pooja Yadav and **S. R. Samadder (2014).** "Life cycle assessment of solid waste management options: A Review". Recent Research in Science and Technology, 6(1), 113-116. ISSN: 2076-5061.

15. Tang, J., Macdonald, S., Peng, X., **Samandder, S. R.,** Murphy, T. M., and Holden, N. M (**2011**). "Application of SWAT model to better understand Cryptosporidium oocysts transport in small ungauged agricultural catchments". Water Research, Elsevier, Vol. 45, pp. 3665-3680. **Impact Factor: 5.991**

16. **Samadder, S. R (2011)**. "Impact of Arsenic Pollution on Spatial Distribution of Human Development Index (HDI)". KSCE Journal of Civil Engineering, Vol. 15, No. 6, pp. 975-982. **Impact Factor: 0.600**

17. **Samadder, S. R.**, Ziegler, P., Murphy, T. M., and Holden, N. M **(2010).** "Spatial Distribution of Risk Factors for Cryptosporidium spp. Transport in an Irish Catchment". International Journal of Water and Environment Research (Published by Water and Environment Federation), Vol. 82, No. 8, pp. 750-758. **Impact Factor: 0.865**

18. **Samadder, S. R (2010).** "Impact of Arsenic Pollution in Drinking Water on Life Expectancy: A GIS Approach". KSCE Journal of Civil Engineering (Springer Publication), Vol. 14, No. 5, pp. 681-691. **Impact Factor: 0.600**

19. **Samadder, S. R.,** and Subbarao, C. **(2007)** "A GIS Approach of Delineation and Risk Assessment of Areas Affected by Arsenic Pollution in Drinking Water." J. Environmental Engineering, ASCE, Vol. 133, No. 7, pp. 742-749. **Impact Factor: 1.267**

International Conference

20. S. Lata and **S. R. Samadder (2014)** "A Comparative Study of Arsenic Removal Techniques for Rural Areas." **Dec. 18-20, 2014**, 19th Conference on Hydraulics, Water Resources & Environmental Engineering.), Maulana Azad National Institute of Technology, Bhopal, India.

21. D. Khan and **S. R. Samadder (2014).** "How Geospatial Technology Helps in Landfill Site Selection." **December 16-18, 2014.** 4th International Conference, World Science Congress. Gandhi Bhaban of Jadavpur University, Kolkata.

22. Sneh Lata and **S. R. Samadder (2014)** "Removal of Heavy Metals from Drinking Water Using Coconut Husk". **September 15-16, 2014**, Vol. 5 (4) ISSN: 2157-7587, Proceedings of 3rd International Conference on Hydrology and Meterology, HICC Hyderabad, India.

23. Ashvani Kumar and **S. R. Samadder (2014).** "Groundwater Contamination by Trace Metals from Coal-Based Thermal Power Plants". **January 23-24, 2014.** International Conference on Emerging Challenges and Issues in Environmental Protection. Raipur Institute of Technology Raipur, Chhattisgarh, India.

24. Yadav, P., **Samadder, S. R. (2014).** "Life Cycle Assessment of Solid Waste Management Options: A Review". **January 23-24, 2014.** International Conference on Emerging Challenges and Issues in Environmental Protection. Raipur Institute of Technology Raipur, Chhattisgarh, India.

25. Sneh Lata and **S. R. Samadder (2014).** "Removal of Heavy Metals Using Rice Husk: A Review". **January 4-5, 2014.** 2nd International Conference of Krishi Sanskriti on Sustainable Innovative techniques in Civil and Environmental Engineering (SITCEE-2014), Jawaharlal Nehru University, New Delhi, India.

26. A. Kumar and **S. R. Samadder (2013).** "Trace and Heavy Metals in Fly Ash and Bottom Ash: A Review". **November 11-13, 2013.** International Conference: Harmony 2013 of National Environmentalist Association, Ranchi, Jharkhand, India on Harmony with Nature in Context of Ecotechnological Investigation and Climate Change. D. D. U. Gorakhpur University, Gorakhpur, Uttar Pradesh, India.

27. Khan, D. and **Samadder, S. R. (2013).** "The Status of Municipal Solid Waste Management in Dhanbad, India and a GIS Approach for Landfill Sitting." **August 16-18, 2013.** International Conference on Conserving Biodiversity for Sustainable Development (INCCBSD 2013). National Institute of Technology, Rourkela, Odisha, India.

28. Sneh Lata and **S. R. Samadder (2013).** "Arsenic Detection Techniques and Their Drawbacks" August 16-18, 2013. **August 16-18, 2013.** International Conference on Conserving Biodiversity for Sustainable Development (INCCBSD-2013). National Institute of Technology, Rourkela, Odisha, India.

29. Khan, D., Vinod, B. V., and **Samadder, S. R. (2012)**. "Impact of Municipal Solid Waste Leachates on Groundwater and Investigate the Effectiveness of Various Geoliner to Control the Leachate Flow Behaviour." **November 2-4, 2012.** 4th International Conference of National Environmentalists Association on Anthropogenic Impact on Environment and Conservation Strategy, Ranchi, India.

30. *McDonald, S., Berzano, M.,Ziegler, P., Peng, X.,* ***Samadder, S*****. R.**, Murphy, T., and Holden, N. M. (**2009**). How sensitive is qualitative risk assessment at the small agricultural catchment scale? November 27, 2009. Joint meeting of the Irish

Society of Parasitology and British Association of Veterinary Parasitologists. Central
Veterinary Research Laboratory, Backweston Campus, Celbridge, Co. Kildare, Ireland.

31. **Samadder, S. R**, Peng, X, McDonald, S, Murphy, T. M, Berzano, M, Ziegler, P.E, Holden, N. M (**2009**). Relative Risk of Cryptosporidium Spp. Transport in an Irish Catchment. October 11-15, 2009. 3rd International Giardia and Cryptosporidium Conference. Orvieto, Italy.

32. X. Peng., S. McDonald., T. Murphy., M. Berzano., P. Ziegler., **S. R. Samadder**., and N. M. Holden (**2009**). The transport and attachment of Cryptosporidium parvum oocysts in main Irish soils. June 15-19, 2009. 18th International Soil Tillage Research Organization. Izmir, Turkey.

33. ***Samadder, S.*** **R**., and Holden, N. M. (**2009**) "A GIS Approach of Cryptosporidium Risk Assessment of Irish Catchment." Conference, Environmental Sciences Association of Ireland, 19th Irish Environmental Researchers' Colloquium; February 18-20, 2009, Waterford Institute of Technology, Waterford, Ireland.

34. ***Samadder, S. R***., and *Subbarao, C.* (**2007**) "Capabilities of GIS in Risk Assessment due to Arsenic Pollution in Drinking Water." Conference on "Current Trends in Remote Sensing and GIS Applications, February 15-17, 2007, IIT Kharagpur, India.

Paper published in national conference:

35. Yadav, P., and **Samadder, S. R. (2014).** "A Comparative Study of Composting and Land filling of Municipal Solid Wastes Using Life Cycle Assessment Technique: A Review". January 30 to February 1, 2014. National Conference on Environmental pollution and protection. National Institute of Technology, Durgapur, India.

36. **Samadder, S. R.**, and Subbarao, C. (2014). "Effect of Arsenic Pollution in Groundwater on Life Expectancy: A GIS Approach". March 28-29, 2014. National Conference on "Water and its Sustainability in Mining and Other Environment: Vision 2050 (WASME 2014", ISBN 978-93-5156-850-6. Indian School of Mines Dhanbad, India.