

CV of Dr. S. R. Samadder (Updated on 12.05.2025)

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CONTACT ADDRESS:

Dr. Sukha Ranjan Samadder

Professor, Department of Environmental Science & Engineering

Indian Institute of Technology (Indian School of Mines), Dhanbad

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CURRENT POSITION:

Associate Dean (R&D),

Tata Steel, Chair Professor,

Head of Centre, Centre for Water Resource Management (CWRM)

Indian Institute of Technology (Indian School of Mines), Dhanbad

EDUCATIONAL QUALIFICATIONS:

Degree / Examination	University / Institution	From and To	Specialization
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
IIT (ISM), Dhanbad	TATA STEEL Chair Professor	1 st May, 2025	Till Date	Teaching & Research
IIT (ISM), Dhanbad	Professor	17 th August, 2023	Till Date	Teaching & Research
IIT (ISM), Dhanbad	Associate Professor	26 th July, 2017	16 th August, 2023	Teaching & Research
IIT (ISM), Dhanbad	Assistant Professor	6 th January, 2012	25 th July, 2017	Teaching & Research
NIT Bhopal, MP	Assistant Professor	19 th January, 2010	3 rd January, 2012	Teaching & Research
University College Dublin, Ireland	Marie Curie Experienced Postdoctoral Fellow	14 th January, 2008	11 th January, 2010	Research (on Cryptosporidium Network in Ireland), Mentoring UG & PG Students, Teaching
NIT Bhopal, MP	Assistant Professor	1 st January, 2006	30 th November, 2007	Teaching & Research
NIT Bhopal, MP	Lecturer	10 th August, 2005	31 st December, 2005	Teaching & Research

Awards:

- Global Ranking in Municipal Solid Waste Research (2024) 17th worldwide in the field of Municipal Solid Waste based on 2024 data by ScholarGPS.
- Top 2% scientist in world ranking by Stanford University and Elsevier BV; Awarding Agency: Stanford University, IIT (ISM) Dhanbad **(2021)**.
- Top 2% of scientists in world ranking by Stanford University and Elsevier BV; Awarding Agency: Stanford University, IIT (ISM) Dhanbad **(2022)**.
- Top 2% of scientists in world ranking by Stanford University and Elsevier BV; Awarding Agency: Stanford University, IIT (ISM) Dhanbad **(2024)**.

Teaching Experience:**Subjects Taught:**

- Water Supply and Treatment (M. Tech level)
- Life Cycle Assessment (M. Tech level)
- Environmental Remote Sensing and GIS (M. Tech level)
- Geoinformatics (B. Tech level)
- EIA (B. Tech level)
- Environmental Hydraulics (B. Tech level)
- Drinking Water Supply and Treatment (B. Tech level)
- Solid Waste Management (B. Tech Level)
- Hazardous and Biomedical Waste Management (B. Tech Level)

Details of Ph. D students Guided/Ongoing: 17 Students (10 Awarded, 7 Ongoing)

S. No	Name of Student	Year	Title of the Dissertation
1.	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.	ASHVANI KUMAR	Awarded (2017)	Analysis of Contaminant Leaching from Coal Combustion Residues into Surface Water, Soil, and Groundwater.
3.	SNEH LATA	Awarded (2018)	Assessment of Iron Impregnated Banana Pith Biochar Adsorbent for As (V) Removal from Drinking Water.
4.	POOJA YADAV	Awarded (2018)	Evaluation of Environmental Impacts of Different Municipal Solid Waste Management Scenarios Using Life Cycle Assessment Approach.
5.	SHIVESH KISHORE KARAN	Awarded (2019)	Development of a Spatially Explicit Framework for Vulnerability Assessment of Water Resources Due to Coal Mining in India.

6.	ROSHAN PRABHAKAR	Awarded (2021)	Assessment of the Performance of Nano Alumina and Its Composite Based Adsorbents for Arsenic Removal from Groundwater.
7.	ATUL KUMAR	Awarded (2022)	Evaluating the Energy Recovery Potential for Better Management of Municipal Solid Waste.
8.	VIVEK SINGH	Awarded (2024)	Assessment of Water Quality Parameters and Identification of Sources of Pollutants of A River Watershed Using Remote Sensing & GIS.
9.	PURNENDU SARDAR	Awarded (2023)	Assessment of the Impact of Climate Change on Mangrove Ecosystem in Sundarban Area Using Remote Sensing and GIS.
10.	RIMA KUMARI	Awarded (2025)	Development of a Novel Copper Recovery Method from e-waste and its life cycle assessment.
11.	PRATIMA KUMARI	2020-Ongoing	Assessment of the potential for preparation of graphene from organic municipal solid wastes and its application for industrial wastewater treatment.
12.	RUPESH RAJWAR	2022-Ongoing	Analysis of arsenic in the food chain through irrigation water-soil-crop pathway and assessment of cumulative human health risk using GIS.
13.	SANTANU GHOSH	2023-Ongoing	Development of a Dynamic Geospatial Framework and Land Suitability Database for Climate-Resilient Alternative Livelihood Options in the Indian Sundarban Region.
14.	MITAN DAS	2024-Ongoing	Yet to be decided
15.	MD SHAMSUDDIN ANSARI	2024-Ongoing	Yet to be decided
16.	ANISH RANI	2024-Ongoing	Yet to be decided
17.	BAISHNABI SAHU	2025-Ongoing	Yet to be decided

Details of M. Tech students guided/Continuing: Total 40 (38 Completed, 02 Ongoing)

S. No	Name of Student	Year of Passing	Title of the Dissertation
1.	NARESH THAKRE	2006	Ambient Air Pollution Status and Health Risk of Bhopal City.
2.	RAVI KANT SHARMA	2007	Analysis of Solid Wastes and Design of Sanitary Landfill for Bhopal City.
3.	RAJEEV SINGH PARIHAR	2007	Route Analysis for Solid Waste Collection in Bhopal City Using GIS.
4.	RAM LAKHAN RAJPUT	2007	Performance Evaluation of UASB Reactor Installed at Bhopal.

5.	ABHIJEET DIJGAVNE	2012	Landfill site selection using GIS.
6.	ANIL AMRAWANSHI	2012	Effect of Municipal Solid Waste (MSW) Dumping on Physical and Chemical Properties of Soil and Water.
7.	PRAMOD KUMAR SINGH	2013	Study on Locally Available Adsorbents for Removal of Arsenic from Groundwater.
8.	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	Removal of Arsenic from Groundwater Using Rice Husk.
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 <i>Moringa Oleifera</i> 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	2017	Assessment of Physico-Chemical Properties of OB Soil for Reclamation and Monitoring Phenological Changes through Remote Sensing.
20.	NITIN KUMAR	2017	Identification of Recycling and Recovery Routes of Plastic Waste for its Better Management: A case Study of Dhanbad City.
21.	JYOTSANA	2017	Synthesis of Iron Nanoparticles from Plant Wastes for Possible Use in Environmental Remediation.
22.	SOMAPARNA GHOSH	2018	Performance of Metal Oxide Nanoparticles for Arsenic Removal from Groundwater.
23.	CHANDRAKANT SINGH	2018	Estimation of Biomass Using Remote Sensing and GIS for Tropical Forest.
24.	YASH ARYAN	2018	A Life Cycle Assessment Approach for Better Management of Plastic Wastes: A Case Study.
25.	ALI	2019	Synthesis of MgO based nano-composite

			adsorbent for removal of As (III) from groundwater.
26.	ABHISHEK MANDAL	2019	Assessment of Environmental Impacts due to Production of Different Types of Cement Using Life Cycle Assessment Approach.
27.	SWATI VAISH	2019	Visible light induced photosynthesis of titanium nanoparticles for environmental applications.
28.	RUPAL PANDE	2019	Assessment of the Spatio-temporal Variation of Aerosol Concentration and Its Relationship with Land Surface Temperature Using Remote Sensing and GIS.
29.	APARNA SRIVASTAVA	2020	A GIS based Selection of Suitable Locations for Establishment of Rain Water Harvesting Sites in Dhanbad.
30.	SHUBHAM	2020	Evaluation of Waste Treatment Technologies for Effective Management of Municipal Solid Waste.
31.	VISHAL SAGAR	2020	Identification of Suitable Areas for Protection of Environmental Regime in Dhanbad Using Remote Sensing and GIS.
32.	RAHUL BHANDARI	2021	Assessment of Various Arsenic Removal Techniques and Their Effectiveness Using Life Cycle Assessment.
33.	KUMAR PRATIK	2021	A Remote Sensing Based Analysis of Indian Ocean Sea Surface Salinity and Its Consequences on nearby mangrove forests.
34.	DEEPAK KUMAR	2022	Estimation of generation rate and recycling potential of household solid waste in academic campus: A case study.
35.	BHAVIK RAJGOR	2023	GIS-based modelling and forecasting of future urban sprawl of Dhanbad city.
36.	ANKIT TIRTHANI	2023	To compare the environmental impact due to grid connected solar park and coal based thermal power plant in India using LCA.
37.	RAHUL KUMAR	2024	Unlocking the Potential of Agro-Wastes: Comparative Analysis and Characterization of Graphene Oxide Synthesized from Different Agro-Waste.
38.	CHANDAN KUMAR	2024	Valorization of non-metallic fraction of e- waste using super critical fluid treatment.
39.	AKANKSHA SRIVASTAVA	2025	Arsenic Mass Balance from Groundwater to Soil and Edible Plant Parts: Experimental and Comparative Study of Coriander in Contaminated Agricultural Soil.
40.	NAMONARAYAN RATHORE	2025	Comprehensive Assessment of Specific Fresh Water Consumption (SFWC) and Alumina Reduction during Iron Ore Beneficiation.

Details of Short-Term Courses Conducted

S. No	Period	Organization	Nature of Work	Status	Amount (Lakh)	Role	No of Co-CI if any
1.	25-27 May, 2016	Different Govt. and PSU Organizations	Short Term Course on “Water Quality and Management”	Completed	2.059	CI	01
2.	27-29 July, 2016	Different Govt. and PSU Organizations	Short Term Course on Monitoring of ecological restoration success and carbon sequestration using remote sensing and GIS	Completed	2.35	CI	01
3.	21-23 September, 2016	Different Govt. and PSU Organizations	Short Term Course on “Water Quality and Management for Thermal Power Plants”	Completed	1.902	CI	NIL
4.	20-22 July, 2022	Different Govt. and PSU Organizations	Short Term Course on “Ecosystem Restoration, Ecosystem Goods & Services, Application of RS & GIS and Modelling”	Completed	3.3	CI	01
5.	23-26 September, 2024	Different Govt. and PSU Organizations	Short Term Course on “Ecosystem Restoration, Eco- Park Development in Mined-out Areas, Assessment of Carbon Sequestration, Ecosystem Goods & Services, and Application of RS, GIS & Modelling”	Completed	10.74	CI	01
6.	10-13 December, 2024	UG, PG Students, and Research Scholars	4-day Workshop on “Microbial and Chemical Risk Assessment Framework”	Completed		Convenor	NIL

Details of Invited Lectures

S. No	Name of the Course	Date	Lectures	Place
1.	3-day training program on Water and Wastewater Treatment and Management for the Executives of Drinking Water & sanitation Department (DWSD), Ranchi	8.11.2012	Operation and Maintenance of Wastewater Treatment Plants	IIT (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	IIT (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	IIT (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	IIT (ISM) Dhanbad
6.	Two-Week Training Programme on Environmental Impact Assessment of Mining Projects for Officials of Ministry of Mines, Government of Afghanistan (6 th December 2014- 22 nd December 2014)	09.12.2014	Model Terms of Reference For Mining Projects	IIT (ISM) Dhanbad
7.	Twenty-One Day Summer School in Geospatial Science & Technology (Level 2) (June 14, 2024, to July 4, 2024)	16.06.2024	Framework for protection of groundwater & surface water using Geospatial Technologies	IIT (ISM) Dhanbad
8.	KIIT Academic Empowerment Program (K-AEP) – 2024 (22 to 29 June 2024)	28.06.2024	Teaching Learning & Research@HEIs: Integrating SDGs, NEP 2020 & Viksit Bharat 2047 Framework	KIIT, Bhubaneswar
9.	Waste Management" for middle and senior level executives of Coal India Limited at IICM, Ranchi. (Aug 23rd-	24.08.2024	Municipal waste/ Colony waste management- Solid	IICM, Ranchi.

	24th, 2024).		waste, Liquid waste and Plastic waste	
10.	Refresher Training Program for CIL Executives" from 16th December to 29th December 2024 at IIT (ISM) Dhanbad	17.12.2024	Waste Management in Mining Process	IIT (ISM) Dhanbad
11.	Environ 2025, held at University College Dublin, Ireland, from (09 to 13 March 2025)	from (09 to 13 March 2025)	Assessing energy recovery potential and environmental trade-offs in waste to energy system: A case study	University College Dublin, Ireland

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 status of arsenic pollution in groundwater of Sahibganj district, Jharkhand.	IIT (ISM) Dhanbad	0.985	completed	PI
2.	Arsenic Removal from Groundwater Using Nano-adsorbents.	SERB	5.50	Completed	PI
3.	Preparation of Nalla Diversion with Surface Run-off Management Study Pertaining to Guali Iron Ore Mines of M/S. OMC Ltd., In Keonjhar District of Odisha.	Odisha Mining Corporation Ltd.	27	Completed	PI
4.	Separation and Recovery of Fine Particles from Coal Washery Effluents Using Bio-Coagulant.	Coal India Ltd.	54.86	Completed	PI
5.	Rejuvenation of existing waterbodies and identification of suitable locations for storing surface water for sustainable water supply in Dhanbad Municipal Corporation Area.	IIT (ISM) Dhanbad	8.20	Completed	PI
6.	Continuous monitoring in the change of ecology of Ananta OCP, MCL.	Coal India Ltd.	25	Completed	Co-PI
7.	Development of a low-cost technology based on biochar supported green zerovalent iron for arsenic and fluoride removal from water.	DST	32.5	Completed	Co-PI
8.	Development of dynamic geospatial framework and land suitability database for best alternative livelihood options in Indian Sundarban region.	SERB	17.09	Ongoing	PI
9.	Reduction of Specific Fresh Water Consumptions (SFWC) at Ore Mines & Quarries (OMQ).	TATA STEEL	36.11	Ongoing	PI

Major Consultancy Projects

S. No	Period	Organization	Nature of Work	Status
1	August 2021 to March 2022	Central Pollution Control Board	Random Verification of Annual Inventory on Hazardous Waste Management	Completed
2	December 2013 to July 2017	NMDC, Kirandul, CG	Setting up suitable Municipal Solid Waste Management Technique for BIOM, Kirandul Complex, Dist. South Bastar Dantewada (C. G).	Completed
3	June 2011 to December 2011	Municipal Corporation, Bhopal, MP	Geo-environmental Investigation of Solid Waste Dumping Site, Bhopal, MP.	Completed
4	June 2011 to December 2011	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

PATENTS:

Patent Granted

1. **Samadder, S. R. & Kapse, G. V. (2018).** A Process for the Preparation of Bio-Coagulant Using *Moringa Oleifera* Seed-Defatted Cake for the Removal of Fine Particles from Coal Washery Effluent (**Granted in 2021**). (Patent No. 384138).

Patent Published

2. **Samadder, S.R. & Kumari, R. (2024).** An integrated process for copper extraction from waste-printed circuit boards (Application No.202431072102).
3. **Samadder, S.R. & Kumari, P. (2024).** A Process of Discharging Spent-Lithium Cobalt Oxide Batteries Using Ultrasonic-Assisted Partial Immersion Method (Application No. 202431079756).
4. **Samadder, S.R. & Kumari, R. (2024).** A process of valorization of waste-printed circuit boards through debromination and metal enrichment (Application No. 202531006628).

5. **Samadder, S. R., Kapse, G. V., Ansari, K., Kumar, D. Ghatak, S. A. (2025).** A system for Real-Time Treatment of coal washery Effluent with Bio-Coagulant under continuous flow condition (Application No. 202531024222).
6. **Samadder, S. R., Kapse, G. V., Ansari, K., Kumar, D. Ghatak, S. A. (2025).** Bio-coagulant from *Brassica nigra* seed defatted cake for the treatment of Coal Washery Effluents and a Process for the Preparation thereof (Application No. 202531024221).
7. **Samadder, S. R., Kapse, G. V., Ansari, K., Kumar, D. Ghatak, S. A. (2025).** A Process for the Preparation of Natural Preservative to Inhibit Microbial Growth in Bio-Coagulant (202531024226).
8. **Samadder, S. R., Kapse, G. V., Ansari, K., Kumar, D. Ghatak, S. A. (2025).** Bio-coagulant from *Moringa oleifera* and *Linum usitatissimum* for the Treatment of Coal Washery and a process for the preparation thereof (Application No. 202531025028)

PUBLICATIONS:

Publications in SCI/SCIE Journals

Google Scholar:

<https://scholar.google.com/citations?user=OUZKzWEAAAAJ&hl=en&oi=ao>

ORCID ID: <https://orcid.org/0000-0002-0037-7030>

Total citations up to 12.05.2025	5620
Cumulative Impact Factor	324.76
Average Impact Factor Per Paper	5.44
Total Publication in Q1 Journal	32
Total Publication in Q2 Journal	18
Total Publication in Q3 Journal	10
Total Publication in Q4 Journal	0
<i>h</i> -index (Google Scholar, Scopus, Web of science)	31, 27, 25
Total No. of SCI/SCIE Publications	60

1. Kumari, R., Prabhakar, R., and **Samadder, S. R.** (2025). Enhanced copper extraction from waste printed circuit boards using glycine after supercritical methanol pre-treatment: Process optimization, leaching kinetics, and thermodynamic analysis *Journal of Waste Management*, 193 (2025): 551-560. <https://doi.org/10.1016/j.wasman.2024.12.037> (Impact Factor: 7.1) [SJR: Q1] SCIE.
2. Kumari, P., & **Samadder, S. R.** (2024). Urban mining for graphite recovery from retired lithium-ion batteries and its valorization to valuable graphene materials: A comprehensive characterization study. *Journal of Energy Storage*, 102, 113873. Doi: <https://doi.org/10.1016/j.est.2024.113873>. (Impact Factor: 8.9) [SJR: Q1] SCIE.
3. Singh, V., and **Samadder, S. R.** (2024). A novel approach for identification of environmentally and economically suitable locations for establishment of wastewater

treatment plants. *Water Sci Technol*, 90 (2): 413–431. Doi: <https://doi.org/10.2166/wst.2024.215> (Impact Factor: 2.5) [SJR: Q2] SCIE.

4. Kumari, R., & **Samadder, S. R.** (2023). Evaluation of the recycling potential of obsolete mobile phones through secondary material resources identification: A comprehensive characterisation study. *Journal of Environmental Management*, 345, 118550. <https://doi.org/10.1016/j.jenvman.2023.118550>. (Impact Factor: 8.0) [SJR: Q1] SCIE.
5. Singh, V., Sardar, P., **Samadder, S. R.**, Kumar, D., and Villuri, V. G. K. (2023). Predicting the Future Landscape of Dhanbad District: An Analysis of Land-Use Change and Urban Sprawl through Cloud Computing and Neural Networks, Accepted. *Environment Development and Sustainability*. (Impact Factor: 4.7) [SJR: Q2] SCIE.
6. Singh, V., Sardar, P., & **Samadder, S. R.** (2023). Landfill site selection in a mining dominated area using a fuzzy AHP and DRASTIC vulnerability based multicriteria decision analysis: a case study of Dhanbad, India. *Environmental Monitoring and Assessment*, 195(10), 1-19. (Impact Factor: 2.9) [SJR: Q3] SCIE.
7. Sardar, P., & **Samadder, S. R.** (2023). Long-term ecological vulnerability assessment of Indian Sundarban region under present and future climatic conditions under CMIP6 model. *Ecological Informatics*, 76, 102140. <https://doi.org/10.1016/j.ecoinf.2023.102140> (Impact Factor: 5.9) [SJR: Q1] SCIE.
8. Kumar, A., & **Samadder, S. R.** (2023). Development of lower heating value prediction models and estimation of energy recovery potential of municipal solid waste and RDF incineration. *Energy*, 274, 127273. <https://doi.org/10.1016/j.energy.2023.127273> (Impact Factor: 9.0) [SJR: Q1] SCIE.
9. Aryan, Y., Kumar, A., & **Samadder, S. R.** (2023). Environmental and economic assessment of waste collection and transportation using LCA: A case study. *Environmental Research*, 231, 116108. (Impact Factor: 7.7) [SJR: Q1] SCIE.
10. Singh, V., Karan, S. K., Singh, C., & **Samadder, S. R.** (2023). Assessment of the capability of SWAT model to predict surface runoff in open cast coal mining areas. *Environmental Science and Pollution Research*, 30(14), 40073-40083. <https://doi.org/10.1007/s11356-022-25032-y> (Impact Factor: 5.8) [SJR: Q1] SCIE.
11. Kumar, A., Bhardwaj, S., & **Samadder, S. R.** (2023). Evaluation of methane generation rate and energy recovery potential of municipal solid waste using anaerobic digestion and landfilling: A case study of Dhanbad, India. *Waste Management & Research*, 41(2), 407-417. <https://doi.org/10.1177/0734242X221122494> (Impact Factor: 3.7) [SJR: Q2] SCIE
12. Kumari, P., & **Samadder, S. R.** (2022). Valorization of carbonaceous waste into graphene materials and their potential application in water & wastewater treatment: a

review. *Materials Today Chemistry*, 26,101192. Doi: <https://doi.org/10.1016/j.mtchem.2022.101192>. (Impact Factor: 6.7) [SJ: Q1] SCIE.

13. Kumari, R., & **Samadder, S. R.** (2022). A critical review of the pre-processing and metals recovery methods from e-wastes. *Journal of Environmental Management*, 320, 115887. Doi: <https://doi.org/10.1016/j.jenvman.2022.115887> (Impact Factor: 8.0) [SJ: Q1] SCIE.
14. Kumar, A., & **Samadder, S. R.** (2022). Assessment of energy recovery potential and analysis of environmental impacts of waste to energy options using life cycle assessment. *Journal of Cleaner Production*. (Impact Factor: 9.8) [SJ: Q1] SCIE.
15. Singh, C., Karan, S. K., Sardar, P., & **Samadder, S. R.** (2022). Remote sensing-based biomass estimation of dry deciduous tropical forest using machine learning and ensemble analysis. *Journal of Environmental Management*, 308, 114639. Doi: <https://doi.org/10.1016/j.jenvman.2022.114639> (Impact Factor: 8.0) [SJ: Q1] SCIE.
16. Prabhakar, R., Ghosh, S., Malik, A., & **Samadder, S. R.** (2021). Efficient loading of nano Mn particles on calcined laterite soil (Lt-nMn) for higher removal of As(III) ions from groundwater: Adsorption and eco-scale analysis. *Environmental Science and Pollution Research*. Doi: <https://doi.org/10.1007/s11356-021-18136-4> (Impact Factor: 5.8) [SJ: Q1] SCIE.
17. Kapse, G., & **Samadder, S. R.** (2021). Moringa oleifera seed defatted press cake-based biocoagulant for the treatment of coal beneficiation plant effluent. *Journal of Environmental Management*. Doi: <https://doi.org/10.1016/j.jenvman.2021.113202> (Impact Factor: 8.0) [SJ: Q1] SCI.
18. Sardar, P., & **Samadder, S. R.** (2021). Understanding the dynamics of landscape of greater Sundarban area using multi-layer perceptron Markov chain and landscape statistics approach. *Ecological Indicators*, 121, 106914. Doi: <https://doi.org/10.1016/j.ecolind.2020.106914> (Impact Factor: 7.0) [SJ: Q1] SCIE
19. Prabhakar, R., & **Samadder, S. R.** (2020). Effective immobilization and reduction in bioavailability of Cd in a L. succinea growing in contaminated sediment by the application of alkali synthesized fly ash-based zeolite (FABZ). *Microporous and Mesoporous Materials*, 110416. Doi: <https://doi.org/10.1016/j.micromeso.2020.110416>. (Impact Factor: 4.8) [SJ: Q2] SCIE.
20. Prabhakar, R., & **Samadder, S. R.** (2020). Use of adsorption-influencing parameters for designing the batch adsorber and neural network-based prediction modelling for the aqueous arsenate removal using combustion synthesised nano-alumina. *Environmental Science and Pollution Research*, 1-18. Doi: <https://doi.org/10.1007/s11356-020-08975-y>. (Impact Factor: 5.8) [SJ: Q1] SCIE.

21. Kumar, A., & **Samadder, S. R.** (2020). Performance evaluation of anaerobic digestion technology for energy recovery from organic fraction of municipal solid waste: A review. *Energy*, 117253. Doi: <https://doi.org/10.1016/j.energy.2020.117253> (Impact Factor: 9) [SJ: Q1] SCIE.
22. Karan, S. K., Ghosh, S., & **Samadder, S. R.** (2019). Identification of spatially distributed hotspots for soil loss and erosion potential in mining areas of Upper Damodar Basin–India. *CATENA*, 182, 104144. Doi: <https://doi.org/10.1016/j.catena.2019.104144>. (Impact Factor: 5.4) [SJ: Q1] SCIE.
23. Lata, S., Prabhakar, R., Adak, A., & **Samadder, S. R.** (2019). As (V) removal using biochar produced from an agricultural waste and prediction of removal efficiency using multiple regression analysis. *Environmental Science and Pollution Research*, 1-14. Doi: <https://doi.org/10.1007/s11356-019-06300-w>. (Impact Factor: 5.8) [SJ: Q2] SCIE.
24. Aryan, Y., Yadav, P., & **Samadder, S. R.** (2019). Life Cycle Assessment of the existing and proposed plastic waste management options in India: A case study. *Journal of Cleaner Production*. 211, 1268-1283. Doi: <https://doi.org/10.1016/j.jclepro.2018.11.236>. (Impact Factor: 9.8) [SJ: Q1] SCIE.
25. Ghosh, S., Prabhakar, R., and **Samadder, S. R.** (2019). Performance of γ -aluminium oxide nanoparticles for arsenic removal from groundwater. *Clean Technologies and Environmental Policy*. 1-18. Doi: <https://doi.org/10.1007/s10098-018-1622-3> (Impact Factor: 4.2) [SJ: Q2] SCIE.
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- 1) Kumari, R., Prabhakar, R., and **Samadder, S. R.** (2024). Prospects of environmental and technosustainability evaluation of renewable energy technologies. In *The Renewable Energy-Water-Environment Nexus* (pp. 113-132). Elsevier.
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