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Name: Dr.BISWAJIT PAUL

Designation: Professor

Department: Department of Environmental Science and Engineering; Centre of Mining

Environment.

 ${\bf Organization: Indian\ Institute\ of\ Technology\ (Indian\ School\ of\ Mines)\ Dhanbad,}$

Jharkhand, 826004, India

Educational Qualification:

Sl	Name of Degree	Year of	Name of the Degree awarded Institute/university
		Passing	
1	PhD (Env Sc & Engg)	2002	IIT(ISM) Dhanbad
2	First Class Mine	2003	Directorate General of Mines Safety (DGMS)
	Manager's		
	Examination		
3	B.Tech- Mining	1994	IIT(ISM) Dhanbad
	Engineering		

Other Qualifications:-

• Recognised Qualified Person (Coal; Ministry of Coal; Metalliferous Mines; Ministry of Mines) for Mine Planning and Closure Planning.

Teaching/Research/Industrial Experience:

Sl.No	Teaching/Research/	Organisation	Position	Period
	Industrial Experience			
1	Teaching/Research	IIT (ISM) Dhanbad	Professor	12-04-2021 till date
2	Teaching/Research	IIT (ISM) Dhanbad	Associate	16-08-2008 -11-04-
			Professor	2021 (12 years 8
				months approx)
3	Teaching/Research	IIT (ISM) Dhanbad	Assistant	16-08-2005 to
			Prof	15.08.2008 (3
				Years)
4	Research	Central Institute of	Scientist	26.12.2001 – 15-08-
		Mining and Fuel	Gr IV	2005 (3 Years 8
		Research (CIMFR-CSIR)		Months Approx)
5	Industry	Tata Steel, Jharia	Manager	01.07.1994 –
		Division	(Mining)	25.12.2001 (7 Years
				& 6 Months)

List of Publications:

Sl	Name of the Authors as appeared in the original manuscript	Title of the Paper	Vol.	Year of Publi catio n	Name of the Journal	Name of publishe rs	Ind exe d in	Impa ct facto r	Cit atio n
1.	Chatterjee, R., Mukherjee, S.K., Paul, B, S Chattopadhy aya	Comparative spectroscopic analysis, performance and emissions evaluation of Madhuca longifolia and Jatropha curcas produced biodiesel.		2021	Environmental Science and Pollution Research.	Springer Nature	SCI, Q2	4.306	
2.	Saha, P., Paul, B.	Identification of potential strategic sites for city planning based on water quality through GIS-AHP-integrated model.		2021	Environmental Science and Pollution Research.	Springer Nature	SCI, Q2	4.306	
3.	Arpan Sarkar, Biswajit Paul	Synthesis, Characterization of Iron-Doped TiO2(B) Nanoribbons for the Adsorption of As(III) from Drinking Water and Evaluating the Performance from the Perspective of Physical Chemistry	322, (11 455 6)	2021	Journal of Molecular Liquids	Elsevier	SCI Q1	5.065	
4.	Sasmita Chand, Biswajit Paul, Manish Kumar	Indirect Aqueous Mineral Carbonation of Linz-Donawitz Slag Samples of Indian Steel Industries	Und er revi sion	2020	Journal of Material Cycles and Waste Management	Springer Japan	SCI, Q2	1.693	
5.	Arpan Sarkar, Biswajit Paul	Analysis of the performance of zirconia-multiwalled carbon nanotube nanoheterostructures in adsorbing As(V) from potable water from the aspects of physical chemistry with an emphasis on adsorption site energy distribution and density functional theory calculations	302 (110 191)	2020	Microporous and Mesoporous Materials	Science Direct	SCI Q1	4.551	3
6.	Arpan Sarkar, Biswajit Paul	Evaluation of the performance of zirconia-multiwalled carbon nanotube nanoheterostructures in adsorbing As(III) from potable water from the perspective of physical chemistry and chemical physics with a special emphasis on approximate site energy distribution	242 (12 523 4)	2020	Chemosphere	Elsevier	SCI Q1	5.778	3
7.	Priti Saha, Biswajit Paul	Water Quality Assessment Techniques	40 (17 9- 216)	2019	Sustainable Agriculture Reviews 40	Springer	SCI	Book Chapt er	

8.	S Chand, SK Chand, B Paul, M Kumar	Long-term leaching assessment of constituent elements from Linz–Donawitz slag of major steel industries in India	16(10) 639 7- 640 4	2019	International Journal of Environmental Science and Technology	Springer	SCI Q2	2.540	3
9.	A Sarkar, A Sarkar, B Paul, GG Khan	Designing of Functionalized MWCNTs/Anodized Stainless Steel Heterostructure Electrode for Anodic Oxidation of Low Concentration As (III) in Drinking Water	4(3 2) 936 7- 937 5	2019	Chemistry Select	Wiley	SCI Q3	1.811	2
10.	Priti Saha, Biswajit Paul	Groundwater quality assessment in an industrial hotspot through interdisciplinary techniques	191 (2) 326	2019	Environmental monitoring and assessment	Springer	SCI Q3	1.903	2
11.	Juli Kumari, Biswajit Paul	Spatiotemporal variation in primary nutrients amassing in peninsular river sediment: India	78(10) 326	2019	Environmental Earth Sciences	Springer	SCI Q2	2.180	1
12.	Arpan Sarkar, Ashish Ranjan, Biswajit Paul	Synthesis, characterization and application of surface- modified biochar synthesized from rice husk, an agro- industrial waste for the removal of hexavalent chromium from drinking water at near-neutral pH	21, 447 - 462	2019	Clean Technologies and Environmental Policy	Springer	SCI Q2	2.429	12
13.	Priti Saha, Biswajit Paul	Assessment of heavy metal toxicity related with human health risk in the surface water of an industrialized area by a novel technique	25	2018	Human and Ecological Risk Assessment: An International Journal	Taylor & Francis	SCI Q3	1.306	14
14.	Priti Saha, Biswajit Paul	Suitability Assessment of Surface Water Quality with Reference to Drinking, Irrigation and Fish Culture: A Human Health Risk Perspective	101	2018	Bulletin of environmental contamination and toxicology	Springer US	SCI Q3	1.48	4
15.	Pawan Kumar Rajak, Shibayan Sarkar, Biswajit Paul	Comparison of the dewatering of underground and open pit coal mine pumping systems in (BCCL), Dhanbad, Jharkhand, India	377	2018	IOP Conference Series: Materials Science and Engineering	IOP Publishi ng			
16.	S Chand, SK Chand, B Paul, M Kumar	Long-term leaching assessment of constituent elements from Linz-Donawitz slag of major steel industries in India	16	2018	International Journal of Environmental Science and Technology	Springer Berlin Heidelbe rg	SCI Q2	2.037	3
17.	A Sarkar, B Paul, G.G Khan	Fabrication of One Dimensional MnO2-TiO2 Nano-heterostructures for Enhanced Hole Mediated Oxidation of As(III) in Potable Water	11	2018	Chemcatchem	Wiley	SCI Q1	4.674	5

18.	Sasmita Chand, Biswajit Paul, Manish Kumar	Short-term leaching study of heavy metals from LD slag of important steel industries in Eastern India	19	2017	Journal of Material Cycles and Waste Management	Springer Japan	SCI Q3	1.693	1
19.	Juli Kumari, Biswajit Paul	Geochemical and environmental risk assessment of hazardous elements in river sediment	76	2017	Environmental Earth Sciences	Springer Berlin Heidelbe rg	SCI Q2	1.765	6
20.	Anup Kumar Gupta, Biswajit Paul	Comparative analysis of different materials to be used for backfilling in underground mine voids with a particular reference to hydraulic stowing	15	2017	International Journal of Oil, Gas and Coal Technology	Inderscie nce Publishe rs Ltd	SCI Q2	0.563	2
21.	Arpan Sarkar, Biswajit Paul	The global menace of arsenic and its conventional remediation-A critical review	158	2016	Chemosphere	Elsevier	SCI Q1	4.551	249
22.	Ankur Nalgundwar, Biswajit Paul, Sunil Kumar Sharma	Comparison of performance and emissions characteristics of DI CI engine fueled with dual biodiesel blends of palm and jatropha	173	2016	Fuel	Elsevier	SCI Q1	5.033	119
23.	Bruno Valentim, Neha Shreya, Biswajit Paul, Celeste Santos Gomes, Helena Sant'Ovaia, Alexandra Guedes, Joana Ribeiro, Deolinda Flores, Sílvia Pinho, Isabel Suárez-Ruiz, Colin R Ward	Characteristics of ferrospheres in fly ashes derived from Bokaro and Jharia (Jharkand, India) coals	153	2016	International Journal of Coal Geology	Elsevier	SCI Q1	5.451	23
24.	Bruno Valentim, Deolinda Flores, Alexandra Guedes, Renato Guimarães, Neha Shreya, Biswajit Paul, Colin R Ward	Notes on the occurrence of phosphate mineral relics and spheres (phosphospheres) in coal and biomass fly ash	154	2016	International Journal of Coal Geology	Elsevier	SCI Q1	5.451	17

25.	S Chand, B Paul, M Kumar	Sustainable Approaches for LD Slag Waste Management in Steel Industries: A Review	60	2016	Metallurgist	Springer	SCI Q3	0.347	25
26.	Sasmita Chand, Biswajit Paul, Manish Kumar	A comparative study of physicochemical and mineralogical properties of LD Slag from some selected steel plants in India	9	2016	J Environ Sci Technol	Asian Network for Scientifi c Informat ion	Sco pus Q3	0.18	6
27.	Anup Kumar Gupta, Biswajit Paul	Augmenting the Stability of OB Dump by Using Fly Ash: A Geo Technical Approach to Sustainably Manage OB Dump at Jharia Coalfield, India	11	2016	Current World Environment	Enviro Research Publishe rs	TR		15
28.	Colin R. Ward Bruno Valentim, Deolinda Flores, Alexandra Guedes, Neha Shreya, Biswajit Paul	Vermicular kaolinite relics in fly ash derived from Bokaro and Jharia coals (Jharkhand, India)	162	2016	International Journal of Coal Geology	Elsevier	SCI Q1	5.451	7
29.	Bruno Valentim, Deolinda Flores, Alexandra Guedes, Neha Shreya, Biswajit Paul, Colin R Ward	Notes on the occurrence of char plerospheres in fly ashes derived from Bokaro and Jharia coals (Jharkhand, India) and the influence of the combustion conditions on their genesis	158	2016	International Journal of Coal Geology	Elsevier	SCI Q1	5.451	2
30.	A. Manjunath, P.S.Paul, B.Paul	Assessment of socio-economic impacts due to mine closure -A conceptual model	64	2016	Journal of Mines, Metals and Fuels	International Information and Engineer ing Technol ogy Association (IIETA) and Books & Journals Pvt. Ltd	Sco pus Q4		
31.	P Priti, Biswajit Paul	Assessment of Heavy Metal Pollution in Water Resources and their Impacts: A Review	3	2016	Journal of Basic and Applied Engineering Research	Krishi Sanskriti			

32.	Sampurna Nand, Biswajit Paul, Mrinal K Ghose	Investigations of Overburden Dump Characteristics for Reclamation in a Critical Coal Mining Area in India	25	2015	Environmental Quality Management	Wiley	SCI Q3		
33.	Sampurna Nand, Biswajit Paul, Mrinal K Ghose	Development of the Method of Simultaneous Backfilling in Highly Inclined and Deep Opencast Mines: A Case Study of India.	14	2015	TIDEE (TERI Information Digest on Energy & Environment)	TERI Press			
34.	Neha Shreya, Bruno Valentim, Biswajit Paul, Alexandra Guedes, Sílvia Pinho, Joana Ribeiro, Colin Ward, Deolinda Flores	Multi-technique study of fly ash from the Bokaro and Jharia coalfields (Jharkhand state, India): a contribution to its use as a geoline	152	2015	International Journal of Coal Geology	Elsevier	SCI Q1	5.451	8
35.	S Chand, B Paul, M Kumar	An overview of use of linz-donawitz (LD) steel slag in agriculture	10	2015	Curr. World Environ	Enviro Research Publishe rs	TR		6
36.	Shashikanta Keisham, Biswajit Paul	A review on the recent scenario of municipal solid waste management in India	3	2015	International Journal of Engineering Research and General Science				5
37.	Anuradha, Biswajit Paul, Jagdish	Microbial degradation of expired slurry explosives in mines: a review	72	2015	International Journal of Environmental Studies	Routledg e, Taylor & Francis	SCI Q3		4
38.	Anup Kumar Gupta, Biswajit Paul	A review on utilisation of coal mine overburden dump waste as underground mine filling material: a sustainable approach of mining	6	2015	International Journal of Mining and Mineral Engineering	Inderscie nce Publishe rs (IEL)	SC OP US Q3		4
39.	Arvind Kumar Rai, Biswajit Paul, Gurdeep Singh	A study on physico chemical properties of overburden dump materials from selected coal mining areas of Jharia coalfields, Jharkhand, India	1	2011	International Journal of Environmental Sciences	Integrate d Publishi ng Associat ion			22
40.	Arvind Kumar Rai, Biswajit Paul, Gurdeep Singh	A study on the Bulk density and its effect on the growth of selected grasses in coal mine overburden dumps, Jharkhand, India	1	2010	International Journal of Environmental Sciences	Integrate d Publishi ng Associat ion			18

41.	Arvind Kumar Rai, Biswajit Paul, Gurdeep Singh	A study on backfill properties and use of fly ash for highway embankments	1	2010	Journal of advanced laboratory research in biology	Society of Open Science		16
42.	Arvind Kumar Rai, Biswajit Paul, Nawal Kishor	A study on the sewage disposal on water quality of Harmu river in Ranchi city, Jharkhand, India	2	2012	International Journal of plant, Animal and Environmental Sciences.(ISSN 2231-4490)			13
43.	Arvind Kumar Rai, Biswajit Paul, Lopa Mudra, Nawal Kishor	Studies of selected water quality parameters of River Ganges at Patna, Bihar	2	2011	Journal of advanced laboratory research in biology			12
44.	Mrinal K Ghose, Biswajit Paul	Underground coal gasification: a neglected option	64	2007	International Journal of Environmental Studies	Routledg e, Taylor & Francis	SCI	11
45.	Neha Shreya, Biswajit Paul	Effective utilization and environmental management of fly ash as a geoliner constituent material	6	2015	Journal of Biodiversity and Environmental Sciences			2
46.	Anup Kumar Gupta, Biswajit Paul	Ecorestoration of Coal Mine Overburden Dump to Prevent Environmental Degradation: A Review	9	2015	Research Journal of Environmental Sciences	Academi c Journals Inc		3
47.	Md Asif Ekbal, Shashikanta Keisham, B Paul	Assessment of Water Quality in North-Eastern Jharia Coalfield-Jharkhand by WQI and GIS Mapping	14	2015	International Journal of Technology Innovations and Research (IJTIR)	HCTL		
48.	Neha Shreya, Biswajit Paul, Biseiro, Deolinda Flores	Fly ash Characterization of Jharkhand (India) by Laser granulometry and SEM-EDS	101	2014	Comunicações Geológicas	LNEG Research for Sustaina bility, Portugal	Q3	4
49.	Arvind Kumar Rai, Farah Diba, Biswajit Paul	A study on the seasonal variations of different physic-chemical water quality parameters of Indrapuri Dam Rohtas District Bihar	2	2013	International Journal of Environmental Sciences			1
50.	Neha Shreya, Biswajit Paul	Compaction and Hydraulic Conductivity Analysis of Fly ash of BTPS for the construction of a Natural Geoliner		2012	IGWC 2012, Conference			1

51.	Arvind Kumar Rai, Biswajit Paul, Gurdeep Singh	A short note on the characterization of fly ash from Chandrapura Thermal Power Station, Bokaro, Jharkhand, India	6	2011	Journal of Environmental Research And Development				6
52.	Arvind Kumar Rai, Biswajit Paul	Degradation of soil quality parameters due to coal mining operations in Jharia coalfield, Jharkhand, India	2	2011	Journal of Advance d Laboratory Research in Biology				6
53.	AK Rai, Paul Biswajit, Singh Gurdeep	A study on the physico- chemical analysis of water quality parameters of Patna district, Bihar, India.	11	2011	Plant Archives				2
54.	AK Rai, Biswajit Paul, Gurdeep Singh	The Preliminary Characterisation of Flyash From Jamadoba Thermal Power Station (JTPS), Jharia Coalfields, Jharkhand	9	2011	Indian Journal of Environmental Protection	Kalpana Corporat ion			1
55.	Arvind Kumar Rai, Biswajit Paul, Gurdeep Singh	Physico chemical properties of fly ash and soil from TISCO power plant, Jharia coalfield, Jharkhand, India	10	2010	Journal of Report and Opinion				5
56.	A K Rai, B Paul, G Singh	A Study on the Environmental Aspects of Coal Ash Dis-posal	30	2010	Indi Jour of enviro prote	Kalpana Corporat ion			2
57.	Biswajit Paul	Utilization of Coal Combustion Residue in Reclamation of Mining Degraded Lands in Jharia Coal Field, India-A Case Study.	36	2010	Journal of Solid Waste Technology & Management	Widener Universi ty School of Engineer ing.			
58.	MK Ghose, B Paul	A perspective of petroleum, natural gas, and coal bed methane on the energy security of India	3	2008	Energy Sources, Part B	Taylor & Francis Group	SCI Q2	0.976	4
59.	Sasmita Chand, Biswajit Paul, Manish Kumar, B,. et.al.	Chemical, mineralogical and morphological properties of steel slag.	9	2007	Journal of Environmental Science and Technology	orgz			
60.	Niraj Kumar, Biswajit Paul	Planning of risk assessment and safety management in Indian surface mines	52	2006	Journal of Mines Metals and Fuels	Indian Mine Manager s Associat ion.	Sco pus		4
61.	Biswajit Paul	Utilization of coal ash in bio- reclamation of mining degraded lands/abandoned opencast mines	52	2004	Journal of Mines, Metals & Fuels	Books and Journals Private Ltd.,			

62.	Niraj Kumar,	Compatibility of resin bolting	2004	2004	Mining,	
	Dr Biswajit	vis-a-vis mass production			Geologic	
	Paul, Dr. A	technology in an Indian			al &	
	Sinha	mechanized underground coal			Metallur	
		mine			gical	
					Institute	
					of India	

Patents Published and Granted

Sl No	PATENT TITLE	STATUS	Patent/ FILE NO
1	A device for loading blasted coal from the working face in conventional longwall mining	Granted	IN258763
2	A device for providing centerlines in a continuous manner during construction in underground mine/ tunnels.	Granted	IN269615
3	A rock bolt for reinforcing rock strata in a roof or side of mine/tunnel.	Granted	IN256831
4	A comb for temperature and volume controlled oiling and massaging of scalp.	Granted	IN259516
5	A movable canopy for immediate front face of mine or tunnel workings along with roof bolting system of support	Granted	IN260373
6	A movable roof support canopy as a safeguard for working under fresh roof in an advancing mine or tunnel.	Granted	IN265746
7	A multi-point anchoring system for grouted-type borehole extensometers using quick or slow setting cement capsules.	Granted	IN258353
8	A non-air based permanent floating device useful for life saving in natural calamities situations.	Granted	IN296760
9	A process for making an artificial aquifer over a land damaged by mining activities (Using Fly-ash). CSIR, My PhD Thesis Work	Published	
10	A very light permanent type life saving vest for an individual in case of any sort of flood or tsunami like calamities and also for water sports / sea bathing. CSIR.	Published	
11	A very light permanent type life saving vest particularly for children in case of any sort of flood or tsunami like calamities and also for water sports / sea bathing. CSIR	Published	
12	A novel flexible non-rustable quick stabilisation device for sandy sea shore as well as useful for temporary fixing up of safety devices like life saving vests, umbrella tops, etc., also working as artificial barriers like mangroves. CSIR	Published	
13	A device and Method for producing controllable and directable concentrated beam of solar radiation (NRDC)	Published	

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