Curriculum Vitae

(Updated 26.07.2021)

Name: Dr.BISWAJIT PAUL

Designation: Professor

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

Organization : Indian Institute of Technology (Indian School of Mines) Dhanbad, Jharkhand, 826004, India

Educational Qualification:

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

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/ Industrial Experience	Organisation	Position	Period
1	Teaching/Research	IIT (ISM) Dhanbad	Professor	12-04-2021 till date
2	Teaching/Research	IIT (ISM) Dhanbad	Associate Professor	16-08-2008 -11-04-2021 (12 years 8 months approx)
3	Teaching/Research	IIT (ISM) Dhanbad	Assistant Prof	16-08-2005 to 15.08.2008 (3 Years)
4	Research	Central Institute of Mining and Fuel Research (CIMFR-CSIR)	Scientist Gr IV	26.12.2001 – 15-08-2005 (3 Years 8 Months Approx)
5	Industry	Tata Steel, Jharia Division	Manager (Mining)	01.07.1994 – 25.12.2001 (7 Years & 6 Months)

Prizes & Awards :-

Sl.N	Year	Name of the Award/Honour	Name of the Organizaion
1	1990	All India Rank 37th ISM Entrance Examination	ISM Dhanbad
2	1990-94	Coal India Merit Scholarship for study in ISM, Dhanbad {B.Tech (Mining Engg)}	Coal India Limited
3	1996	Selected in Tata Steel Task Force for Productivity Improvement	Tata Steel Limited
4	1997	Value Engineering Award**:** For Utilization of Waste Belt Conveyors as Liner Material in Mixing Chamber in Stowing Plant	Tata Steel Limited
5	1998	Value Engineering Award**:** For Optimization of Pumping Network through Boreholes in Digwadih Colliery	Tata Steel Limited
6	2005	Patent Award for filing 12 CSIR Patents (self)	Central Institute of Mining and Fuel Research (CIMFR-CSIR)
7	2019	Duo India Fellowship for UK	ASEM-DUO

Name of the Research area during Ph.D

Investigation into utilization of fly-ash in economic management of mining degraded land with special reference to TISCO lease hold area in Jharia Coalfield

Current area of Research:

Mining Environment, Environmental Geotechnology, Mining Land Reclamation, Mine Filling.

List of Ph.D awarded (Title, Year of completion, Role (Guide/Co-guide)):

Sl	Title	Year of completion/Date of Award	Role
1	"Investigation Into Backfill Design of Opencast Mines with Reference to Jharia Coalfield, Eastern India" Mr. Arvind Kumar Rai, 0250/2007	26.06.2012	Guide
2	"Geotechnical Assessment of Overburden for Utilization as Landfill Material in Chasnalla Opencast Colliery, Jharia Coalfield, Eastern India" Mr. Sampurna Nand),.2010 DR 0132	08.02.2016	Guide
3	"Investigation into Microbial Degradation of Commercial Explosives and Their Conversion into Bio-Products" Ms Anuradha Kumari, 2012DR0052	09.12.2015	Guide
4	"Geotechnical assessment of Geoliner using flyash of thermal power plants around Jharia Coalfields India", Ms Neha Shreya, 2011DR0052	02.12.2016	Guide

5	Utilization of Coal mine overburden dump waste as overburden mine filling material at Jharia Coalfields, Mr Anup Kumar Gupta, 2013DR0019	05.05.2018	Guide
6	"Investigation of Environmental and Socio-economic Impact of Mine Closure with reference to Kolar Gold Fields", Mr.A. Manjunath, 2014DR1000	04.09.2017	Co-Guide
7	"Investigation and utilisation of LD slag waste from different steel industries in India" Ms Sasmita Chand, 2013/DR/0144	16.11.2018	Guide
8	"Evaluation of Sediment Yield Characteristics and Fixed Nutrient in Middle Stretch of Damodar River, Eastern India", Ms Juli Kumari, 2014DR0019	09.12.2019	Guide
9	"Water Quality Assessment and Geo Spatial Mapping in and around Durgapur Industrial City, West Bengal, India", Ms Priti Saha, 2014DR0213	20.06.2020	Guide
10	"Engineered Metal Oxide Based Nano-Structures for Remediating Arsenic from Potable Water", Mr.Arpan Sarkar, 2015DR0031	11.11.2020	Guide

Ongoing 1 PhD Full time and 1 Part Time scholar/s

R&D Projects

S.No	Project Title	Amt in Lakhs	Role (PI/CO-PI)	No of Co-PIs	Funding Agency	Duration	Status
1	Arid Region Reclamation Technology with respect to Lignite Mining Areas in Kutch, Gujarat **No. DST(SEED) (270)/2020-2021/755/ESE**	**122.44**	PI	1	Dept. of Science and Technology. New Delhi	3 Years (Proposed; Approved in Feb 2022; Sanctioned on 31st Dec 2020)	Ongoing
2	Reassessment Study for Management Plan for Sustainable Mining (MPSM) in Saranda and Chaibasa Forest Division in West Singhbhum District of Jharkhand **MOEFCC :letter No : Letter No 11-65/2014/FC(Pt).26.10.2020**	**10.92**	PI	1	Ministry of Environment Forest and Climate Change (MOEFCC)	1 Year	Approved MOEF.Letter No 11-65/2014/FC (Pt). **26.10.2020**

3	Scientific Study into various aspects regarding dumping of fly ash in the external and internal dumps of Dipka Coal Mine expansion project **No. SECL/2018-2019/592/ESE**	28.91	PI	0	South Eastern Coalfields Limited	2 Years	Completed
4	Scientific Study on Impact of Ironore Mining in Hydrological Behavior of Aquifers in Bonai and Koira Sector of Sundargarh District of Odisha **No. Rungta(1)/18-19/629/ESE**	11.80	PI	0	Rungta & Sons	2 Years	Completed

Major Research Achievements:

- Optimum mix of flyash a waste from thermal power plant and overburden dump for safe disposal in large opencast mines.
- Reclamation of Mining Degraded Land, Arid & Desertified Land

List of Publications:

Sl	Name of the Authors as appeared in the original manuscript	Title of the Paper	Vol.	Year of Publication	Name of the Journal	Name of publishers	Indexed in	Impact factor	Citation
1.	Chatterjee, R., Mukherjee, S.K., **Paul, B,** S Chattopadhyaya	Comparative spectroscopic analysis, performance and emissions evaluation of Madhuca longifolia and Jatropha curcas produced biodiesel. https://doi.org/10.1007/s11356-021-15081-0		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, (114556)	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	*Under revision*	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 Chapter	
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 Publishing			
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 Heidelberg	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 Heidelberg	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	Inderscience Publishers 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 Scientific Information	Scopus 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 Publishers	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 Engineering Technology Association (IIETA) and Books & Journals Pvt. Ltd	Scopus 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 R 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 Publishers	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	Routledge, 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	Inderscience Publishers (IEL)	SCOPUS 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	Integrated Publishing Association			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	Integrated Publishing Association			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	Routledge, 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	Academic 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,** B Valentim, J Ribeiro, Deolinda Flores	Fly ash Characterization of Jharkhand (India) by Laser granulometry and SEM-EDS	101	2014	Comunicações Geológicas	LNEG Research for Sustainability, 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 Corporation			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 Corporation			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 University School of Engineering.			
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 Managers Association.	Scopus		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, Dr **Biswajit Paul**, Dr. A Sinha	Compatibility of resin bolting vis-a-vis mass production technology in an Indian mechanized underground coal mine		2004	2004	Mining, Geological & Metallurgical Institute of India			

List of Industrial Consultancy Projects:(Title, Sanctioning authority, Duration, Amount, Status, Role (PI/Co-PI)), <<Give in Tabular form >>

Sl No	Title	Sanctioning Authority	Duration	Value (Lakhs)	Status	Role
1	Preparation of Yearly Mine Closure Activity Plan of 5 Mines of GMDC Cons/3867/2018-19	Gujarat Mineral Development Corporation Ltd	2 years	31.62	Ongoing	PI
2	Development of framework for Environmental monitoring (AAQM), implementation and control in line with CPCB Guidelines for Iron ore Mines in Goa CONS/3652/17-18	Fomento Resources. Vedanta, Sesa Goa	2 Years	29.50	Ongoing	PI
3	Social Impact Study of Sudamdih, Bhojudih & Patherdih Washery of BCCL, CONS/3378/2016-17	Coal India Ltd	2 Years	27.14	Ongoing	PI
4	Study on the impact of traffic density on ecology and human community Cons/3544/2017-18	Rungta & Sons Ltd	1 year	5.75	Completed	PI
5	Storm water management Plan for Sanindpur Iron and Bauxite Mine Cons/3536/17-18	Rungta & Sons Ltd	1 year	5.75	Completed	PI
6	Assessment, Certification and Preparation of Yearly Mine Closure Activity of 5 Mines of GMDC Cons/3484/2016-17	Gujarat Mineral Development Corporation Ltd	2 years	31.62	Completed	PI
7	Training Program on "Environmental Aspects of Mining" 5-7 Sept 2015, IIIF Kolkata Cons/2955/2015-16	Coal India Ltd	1 year	4.05	Completed	PI
8	Training Program on "Mining & Environment"-II 16-23rd Jan 2017 Cons/3427/16-17	Adani Enterprises Ltd	1 year	6.44	Completed	PI
9	Training Program on "Mining & Environment" 1-8th Aug 2016 Cons/3286/16-17	Coal India Ltd	1 year	22.54	Completed	PI
10	Assessment of Mine Closure, Talabira-I, Cons/2888/2015-16	Hindalco Industries Limited.	1 year	6.72	Completed	PI
11	Study on suitability and feasibility of mixing of flyash in the over burden of Kusmunda opencast mines of SECL with regard to stability of dumps and effect on the ground water and other safety, environmental aspects. Cons/3038/2015-16	South Eastern Coalfields Ltd	2 years	22.472	Completed	PI
12	Comparative Study Between Underground and Opencast Mining in Parsa Coal Block, Chattisgarh, Cons/2492/2013-14	Chattisgarh State Power Corp Ltd & Adani Ent Ltd	2 years	13.77	Completed	PI

13	Risk Assessment of Coal Washery, S&T Mining Co. Cons/2392/2013-14	(S&T Mining) Co. Sail & Tata-JV	2 Years	8.99	Completed	PI
14	'Environmental Impact Assessment of Mining Projects' for Officials of Ministry of Mines, Govt of Afghanistan Cons/2742/2014-15	Govt of Afghanistan	1 year	43.31	Completed	PI
15	Study to assess the extent of Illegal Mining in BCCL, CCL and ECL Subsidiaries of Coal India Ltd. Cons/2116/2012-13	Coal India Ltd	5 years	29.78	On going	PI
16	Investigation of Geotechnical Parameters of Steel Slag for Utilization in Underground Coal Mine Stowing, Tata Steel Ltd Cons/2529/2014-15	Tata Steel Ltd	2 years	2.13	Completed	PI
17	Sustainable Mine Planning for Ironore Mining in Mehalahalli, Chitradurga. Cons/1711/2011-12	Vedanta	2 years	22.06	Completed	PI
18	Environmental Study of DVC Bermo Mines Cons/3315/16-17	Damodar Valley Corporation	1 Year	1.48	Completed	PI
19	Environmental Study of DVC Bermo Mines Cons/2910/15-16	Damodar Valley Corporation	1 Year	1.48	Completed	PI
20	Environmental Study of DVC Bermo Mines Cons/2778/14-15	Damodar Valley Corporation	1 Year	1.48	Completed	PI
21	Environmental Study of DVC Bermo Mines Cons/2315/13-14	Damodar Valley Corporation	1 Year	1.48	Completed	PI
22	Environmental Study of DVC Bermo Mines Cons/1955/12-13	Damodar Valley Corporation	1 Year	1.3	Completed	PI
23	EIA/EMP of Tata Steel Sand Leases (Dungri-Petiya). Cons/1816/2012-13	Tata Steel Ltd	4 years		Ongoing	PI
24	EIA/EMP of Tata Steel Sand Leases (Tetangabad). Cons/1816/2012-13	Tata Steel Ltd	4 years		Ongoing	PI
25	EIA/EMP of Tata Steel Sand Leases (Bhatua Ranipokhar).	Tata Steel Ltd	4 years		Ongoing	PI
26	EIA/EMP of Tata Steel Sand Leases (Kunji) Cons/2212/13-14	Tata Steel Ltd	4 years	8.31	Ongoing	PI
27	EIA/EMP of Tata Steel Sand Leases (Premsinghdih) Cons/2213/2013-14	Tata Steel Ltd	4 years	7.58	Ongoing	PI
28	EIA/EMP of Tata Steel Sand Leases (Dungri-Bhowrah) Cons/2211/2013-14	Tata Steel Ltd	4 years	8.31	Ongoing	PI
29	EIA/EMP of Tata Steel Sand Leases (Mohulbani-Gorkhuti) Cons/2210/13-14	Tata Steel Ltd	4 years	8.31	Ongoing	PI

30	Pre-Feasibility Report of Kenduadih Colliery, BCCL CONS/1462/2011-12	Bharat Coking Coal Ltd/Dalmia Cement	1 year	1	Completed	PI
31	Mining Plan of Rock material at Little Andaman Island, CONS/0799/09-10	Ministry of Shipping	2 Year	5	Completed	PI
32	EIA/EMP of seven mining leases of Tata Steel for Environmental Clearance from Ministry of Environment & Forest CONS/568/08-09	Tata Steel Ltd	4 Years	22.5	Completed	PI
33	Mine Plan of Tasra OCP of SAIL-ISP for approval from Ministry of Coal CONS/0339/2007	Steel Authority of India Ltd	2 years	3	Completed	PI
34	Mine Plan of Trans-Damodar Coal Block CONS/415/2007	West Bengal Mineral Dev. Corp	2 years	0.5	Completed	PI

List of Executive Development Programme (EDP) Courses:

Sl.	Title	Value (in Lakhs)	Date of Course	Role (PI/Co-PI)
1	Mining and Environmental Aspects of the Industry	10.00	05 days, (21-25 Oct 2019); at IIT(ISM) Dhanbad	PI
2	Training Programme on "Mine Ecology & Environment	1.20	7-8 May 2018; MTI, SAIL, Ranchi	Co-PI
3	Off-Campus course on Mine Ecology & Environment	1.20	11-13, Dec., 2017; MTI, SAIL, Ranchi	Co-PI
4	Occupational Health, Safety and Environment	4.00	03 days 17-19 May, 2017; at IIIF Kolkata	Co-PI
5	Mining and Environment for Non-Mining Executives	6.44	16-23 January 2017, at EDC, IIT(ISM), Dhanbad	PI
6	Mining and Environment for Non-Mining Executives	17.00	1-8 August 2016, at EDC, IIT(ISM), Dhanbad	PI
7	Occupational Health, Safety and Environment	4.04	Jan 7-9, 2016, IIIF Kolkata	Co-PI
8	Environmental Aspects of Mining	4.05	2-5 Sept 2015, IIIF Kolkata	PI
9	Environmental Impact Assessment of Mining Projects' for Officials of Ministry of Mines, Govt of Afghanistan	43.31	Nov 29-Dec 15, 2014, at ISM Dhanbad	PI

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	

Teaching Records

B.Tech (Undergraduate Level)							
Sl No	Semester	Code		L	T	P	Total
1	V Sem B.Tech (Env) / (Hons)	ESC 15101 Present	Environmental Geotechnology (3:0:0)	3	0	0	3
2	V Sem B.Tech (Env)/ (Hons)	ESC 15201 Present	Environmental Geotechnology (Practical) (0:0:2)	0	0	0	2
3	V Sem B.Tech (Env)/ (Hons)	ESH 15102 Present	Environmental Engineering Design -I (S) (3:0:0)	1	0	0	1
4	VI Sem B.Tech (Env)/ (Hons)	ESC161 04 Present	Environmental Aspects of Industries (4:0:0)	4	0	0	4
5	VIII Sem B.Tech (Env) /(Hons)	ESC 181 02 Previously	Environmental Management System and Auditing (3:0:0)	3	0	0	3
6	VIII Sem B.Tech (Env) /(Hons)	ESC 181 03 Present	Occupational Health, Safety and Risk Assessment (4:0:0)	4	0	0	4
7	VIII Sem B.Tech (Env) /(Hons)	ESH 181 02 Present	Environmental Engineering Design - III (S) (3:0:0)	1	0	0	1
8	VIII Sem B.Tech (Env)/ (Hons)	ESE 181 04	Social Impact Assessment and Rehabilitation & Resettlement Issues				
Taught Previously							
1	B.Tech Env Engg, VIII Sem	Taught Previously	Energy & Environment	2	0	0	2
2	B.Tech Env Engg, VIII Sem	Taught Previously	Risk Assessment and Disaster Management	4	0	0	4
3	B.Tech Env Engg, VIII Sem	Taught Previously	Environmental Auditing,	4	0	0	4
4	B.Tech Env Engg, IV Sem	Taught Previously	Industry & Environment	2	0	0	2
	B.Tech Common, I & II Sem	Taught Previously	Earth System Science	2	0	0	2
Other Departments							
1	VII Sem B.Tech Mining Engg)	Present	Environmental Aspects of Mining (3:0:0)	2	0	0	2
2	(M.Tech OCM II Sem)	Taught Previously	Environmental Aspects of Mining Industry (3-0-0)	2	0	0	2

3	I Sem, M.Tech PE Exploration	Taught Previously	Environmental Planning for Mining (M.Tech Mineral Explo) (3-0-0)	3	0	0	3
4	I-Sem M.Tech Fuel Engineering)	Taught Previously	Environmental Engineering (3-0-0)	3	0	0	3
M.Tech (ESE) Post graduate Level							
1	I Sem M.Tech (ESE)	ES E 511 01 (Presently)	Environmental Aspects of Industries (3:0:0)	2	0	0	2
2	I-Sem M.Tech ESE	ES E 511 05 (Presently)	Environmental Geotechnology (for JRFs) (3-0-0)	3	0	0	3

Administrative Experience/ Contribution to Student/School Affairs

1	**Warden** Sapphire Hostel from 2006 to 2011-(06 years), developed the peripheral road, gymnasium, badminton & Volley ball courts.
2	Member of Student's "Canteen Committee" for 5 years (2006-2011).
3	Co-Convener ISM Srijan, 2011 (Annual Student Youth Festival)
4	Convener, ISM Srijan, 2012
5	Treasurer, ISM Alumni Association 2006-14 **(8 years)**
6	Member Improvement Group ISM, Dhanbad (2011-2017) 3yrs
7	Co-Convener ISM Basant 2014 ISM Alumni Reunion
8	Convener, IIT(ISM) Basant 2016, ISM Alumni Reunion
9	First Convener, Industry Institute Interaction, 2016 , 7th Feb (National Seminar)
10	Convener, National Seminar on "Sustainable Growth of Mineral Sector (SGMS-2017) held during 23rd to 24th December 2017
11	Training and Placement Incharge of B.Tech & M.Tech Students since 2010-2016**.(Industrial Liaison)**
12	Organizing field visit, excursion and other industry related visits with B.Tech & M.Tech Students
13	Working Committee, Bihar Climate Change Action Plan
14	Member of Dhanbad District Environmental Management Committee
15	Member of Academic Council (2015-16)
16	Member of Executive Board, Indian School of Mines, Dhanbad (2015-2016)
18	Member of Patent Committee
19	Conducted ISM Entrance Examination in various places like Varanasi, IIT Guwahati, NGRI, Hyderabad, KIT Bhubaneswar, Rabindra Bharati University, Kolkata.
20	Member of ISM Andhra Pradesh ISM Regional Centre Core Committee.
21	Visiting Professor- National Institute of Technology, Durgapur, Department of Earth and Environmental Studies.
22	Delivered Invited Lectures in DGMS (GOI); CAG (GOI); Penstate University USA; California State University, USA; IIT Guwahati, NIT, DGP; Sambalpur University (Odisha Govt); Industries like CIL, Tata Steel, SAIL, Vedanta, etc.
23	TEQIP Coordinator of Env Sc & Engg Department, 2013-2016.
24	M.Tech (ESE) Coordinator 2016 till date.

At Departmental Level

- M.Tech Coordinator (2016-2019)
- DAC Secretary (2018-2021); (2011-2016)
- Acting HOD ship (during absence of regular HODs) since 2011.
- NABET /QCI Coordinator (2011-2016)
- NBA Coordinator (Since 2016 & also in 2020-21)
- Coordinator ISO -9001, OHSAS – 18001 (2015-2018)
- Departmental TEQIP-II Coordinator 2013-2016
- Training and Placement Coordinator since 2007 till date

2) At CIMFR, Dhanbad (2001-2005)

- As a Scientist in CIMFR, looked after the Patent Division of the Institute, along with research work.
- Drafted 36 patents for different departments and CIMFR (Dhanbad) filed 38 patents in a year, which was never achieved before.
- Worked for a number of Environmental Research work as active member.

At Tata Steel, Jharia Division, (1994-2001)

1. As a Manager Tata Steel, managing and motivating the officers, supervisors and the workers for productivity, safety and environmental management.
2. A Mining Degraded land was Reclaimed, developing an Eco-Park in a subsided land.
3. Awarded Value Engineering Awards 3 times for improvement of process in Mines. (Reduction in pumping cost, Improvement in Stowing, Design of an innovative belt conveyor).
4. Implemented ISO 9001, for Coal Mines (Jamadoba Colliery). It was the first mine in India, to acquire ISO 9001 Certificate.

Date : 26.07.2021