

## Curriculum Vitae

1.	<b>Name</b>	:	<b>Dr Biswajit Paul</b>	<b>Employee No : 813</b>
2.	<b>Designation</b>	:	<b>Associate Professor, Environmental Science and Engineering Dept, Centre of Mining Environment, ISM, Dhanbad, India</b>	
3	<b>Date of Birth</b>	:	<b>25<sup>th</sup> December 1971</b>	
4	<b>Educational Qualification</b>	:	<b>B.Tech (Mining Engg); ISM; 1994 Ph.D (Env Sc &amp; Engg) ; ISM ; 2002 First Class Mine's Manager Competency Exam 2003</b>	
5	<b>Employment</b>	:	<b>2008- Till date Associate Prof. (ISM, Dhanbad) 2005- 2008; Assistant Prof, (ISM, Dhanbad 2001-2005, CIMFR (CSIR) (Scientist) 1994-2001 Tata Steel (Manager Mines)</b>	



### 1. Publications

1.	Anuradha, Paul, B., Jagdish. (2015), Microbial degradation of expired slurry explosives in mines: a review, International Journal of Environmental Studies, Vol 72, Issue 1, DOI No 10.1080/00207233.2014.983738. Publisher:-Taylor & Francis Ltd.
2.	Shreya, N., Paul, B., Ribeiro, J. Valentim, B., Flores, D. (2014) Fly ash characterization of Jharkhand (India) by laser granulometry and SEM/EDS, Comunicacoes Geologicas, ISSN: 0873-948x, e-ISSN:1647-581X, Vol. 101, Especial II-, 851-854.
3.	Shreya, N., Paul, B. (2015), Effective utilization and environmental management of fly ash as a geoliner constituent material, Journal of Biodiversity and Environmental Sciences, ISSN: 2220-6663, Vol. 6, No. 1, p. 511-519.
4.	Rai, A.K., Paul, B. (2011), Geotechnical properties of flyash used in construction of road embankment, Indian Journal of Environmental Protection, Vol. 31 (12), pp. 977-983.
5.	Rai, A.K., Paul, B. (2011), Physical characterisation of fly ash from coal fired thermal power plants, Jharia Coalfield, Jharkhand, Ecology, Environment and Conservation, Vol. 17 (3), pp. 553-556.
6.	Rai, A.K., Paul, B., Singh, G., (2011), Effect of waste disposal on water quality of river Harmu in Ranchi city, Jharkhand, Indian Journal of Environmental Protection, 31 (9), pp. 758-763.
7.	Rai, A.K., Paul, B., Singh, G., (2011), The preliminary characterisation of flyash from Jamadoba Thermal Power Station (JTPS), Jharia Coalfields, Jharkhand, Indian Journal of Environmental Protection, 31 (8), pp. 617-626.
8.	Rai, A.K., Paul, B., Singh, G., (2010), A study on the environmental aspects of coal ash disposal, Indian Journal of Environmental Protection, 30 (12), pp. 1025-1029.
9.	Rai, A.K., Paul, B., Singh, G., (2010), Physical properties of overburden coal dump materials from Jharia coalfield, Jharkhand, India, Ecology, Environment and Conservation, 16 (4), pp. 601-604.
10.	Rai, A.K., Paul, B., Singh, G., (2010), Characterization of various soil properties in Block II coal mining area of Jharia coalfield, Jharkhand, Indian Journal of Environmental Protection, 30 (8), pp. 673-677.

11.	Paul. B., Ghose M. K., (2008), A perspective of petroleum, natural gas, and coal bed methane on the energy security of India, Energy Sources, Part B: Economics, Planning and Policy, 3 (4), pp. 411-419. Publisher:-Taylor & Francis Ltd.
12.	Paul. B., Ghose M. K. (2007), Underground coal gasification: A neglected option, International Journal of Environmental Studies, 64 (6), pp. 777-783. Publisher:-Taylor & Francis Ltd.
13.	Paul.B., (2006), Utilization of coal ash in bio-reclamation of mining degraded lands/abandoned opencast mines, Journal of Mines, Metals and Fuels, 52 (11), pp. 347-350+343.
14.	Kumar, N., Paul, B. (2006), Planning of risk assessment and safety management in Indian surface mines, Journal of Mines, Metals and Fuels, 52 (11), pp. 314.
15.	Paul, B., (2005), Bio-reclamation of coal mining subsided lands/abandoned open cast mines vis-À-vis utilization of coal ash 22nd Annual International Pittsburgh Coal Conference 2005, PCC 2005, 1, pp. 162-172.
16.	Paul, B. (2010), ‘ Utilization of Coal Combustion Residue in Reclamation of Mining Degraded Lands in Jharia Coalfields, India-A Case Study’, The Journal of Solid Waste Technology and Management, USA (International), Issue Feb 2010, ISSN: 1088-1697, pp 86-94 ,
17.	Paul, B., (2004), Utilization of coal ash in bio-reclamation of mining degraded lands/abandoned open cast mines, International Symposium on ‘Developments in Surface mining technology – planning, equipment, maintenance and environmental Management, Journal of “Mines Metals and Fuels, Special issue Nov, 2004, pp 347-351.
18.	Rai, A.K., Paul, B., Singh, G., (2010), Physico - Chemical Properties of Fly ash and Soil from TISCO Power Plant, Jharia Coalfield, Jharkhand, India, Report and Opinion, 2 (10), pp 50-57. www.sciencepub.net/report.
19.	Rai, A.K., Paul, B., Singh, G., (2011), A study on physico chemical properties of overburden dump materials from selected coal mining areas of Jharia coalfields, Jharkhand, India, International Journal of Environmental Sciences, Volume 1, No 6, Apr,2011,ISSN 0976-4402 p 1350-1360
20.	Rai, A.K., Paul, B., Singh, G., (2010), Utilization of fly ash as filling material in underground mines, MINETECH, Vol 31, No 3, p37-40
21.	Rai, A.K., Paul, B., Singh, G., (2010), A short note on the characterisation of fly ash from chandrapura thermal power station, Bokaro, Jharkhand, India, , Journal of Environmental Research and Development, Vol 6, No 1 Sept 2011, pp 235-242.
22.	Rai, A.K., Paul, B., Singh, G., (2010), A study on the Bulk density and its effect on the growth of selected grasses in coal mine overburden dumps, Jharkhand, India, International Journal Of Environmental Sciences Volume 1, No 4, ISSN 0976-4402, pp 677-684

## 2. Seminar & Conference

1.	Paul, B, (2012), Geotechnical Investigation of Overburden Wastes of Jharia Coalfields India, XII International Symposium on Environmental Geotechnology, Energy and Global Sustainable Development (ISEG2012), California State University, Los Angeles, CA, USA.
2.	Paul, B, (2012), Conceptual Closure Plan of Coalfields – a case study of Jharia, 4 <sup>th</sup> Asian Mining Congress, Sustainable Mining in Asia-Challenges and Opportunities, Kolkata, pp 134-140.-
3.	Paul, B, (2010), Utilization of Coal Combustion Residue in Reclamation of Mining Degraded Lands in Jharia Coalfield, India-A Case Study, International Conference on Solid Waste Technology and Management, Philadelphia, PA, USA.
4.	Paul, B., Rai, A.K., (2007), Post-reclamation studies of backfilled opencast coal mines, proceedings of 1st International Conference on Managing the Social and Environmental Consequences of Coal Mining in India”, New Delhi, pp 447-453.

5.	Paul, B., Maiti, S.K. (2007), Eco restoration of mine degraded land: How to achieve?, proceedings of 2nd Indian Mineral Congress, 8-9th April, 2007, pp 320-340.
6.	Paul, B., Maiti, S.K., Singh, G., Kumar, T., (2007), Hydrogeological characteristics of reclaimed open cast coal mine, proceedings of 2nd Indian Mineral Congress, 8-9th April, 2007, pp 304-313.
7.	Paul, B., (2006), Disaster management systems: - floods, earthquakes, cyclones, land slides and mining, proceedings of Seminar on Mining & Mineral Activities – its impact in Dhanbad Region, 11th Nov 2006, pp 59-63.
8.	Paul, B., (2005), Utilization of coal ash for sustainable development of mining degraded lands/abandoned open cast mines, proceeding of international congress on Fly-ash, New Delhi Dec 4-7, 2005.
9.	Paul, B. (2005), Sustainable reclamation of coal mining subsided lands/abandoned open cast mines vis-à-vis utilization of coal ash, Proceedings of International Symposium on Advances in Mining Technology and Management, IIT Kharagpur, Nov 30-Dec 2, 2005, pp 431-439.
10.	Paul, B. (2005), Reclamation of mining degraded land filled with fly-ash in Jharia Coal Field, India-A case Study, Proceedings of 20th World Mining Congress, 2005, 7-11 Nov 2005. Tehran, Iran.
11.	Paul, B. (2005), Bio-reclamation of coal mining subsided lands/abandoned open cast mines vis-à-vis utilization of coal ash, Proceedings of 22nd Annual International Pittsburgh Coal Conference, 12th –15th Sept 2005, University of Pittsburgh, PA, USA pp 127-130.
12.	Paul, B., (2005), Sustainable bio-reclamation of coal mining subsided lands/abandoned open cast mines vis-à-vis utilization of coal ash, National seminar on policies, statutes & legislation in mines, (POSTALE 2005), 30-31st July 2005, CMRI, Dhanbad, proceeding vol. pp 148-161.
13.	Paul, B., (2005), Networking of R&D in Indian Mineral Sector, 1st Indian Mineral Congress, 28 Feb –1st Mar, 2005, ISM, Dhanbad, proceeding vol. pp 445-454.
14.	Paul, B., Kumar, N., Gupta, S.K., Sen, K., (2004), Knowledge Networking in Indian Mining Industry, R&D Management Conference, N. Delhi, 6-7 Dec 2004, Proceeding Vol. Pp 85-88.
15.	Paul, B. (2004), Training needs in respect of inundation prevention in Jharkhand coal mines, Seminar proceedings of Mines Rescue Day, 16th Nov 2004, Dhanbad, INMOSSA 2004, Proceeding Vol. pp 43-46.
16.	Paul, B. (2004), Training needs to Prevent Inundation in Jharkhand Coal Mines, National Seminar on “Role of Mining Industry in Economic & Industrial Development of Jharkhand – Problems and Prospects” (JHMIN 04) 28th Feb 2004, ISM, Dhanbad, Proceeding Volume.
17.	Paul, B., (2004), Kumar, N., Sinha, A., Compatibility of Resin Bolting vis-à-vis Mass Production Technology in an Indian Mechanized Underground Coal Mine, MGMI, International Conference on Future of Indian Mineral Industry – Challenges and Opportunities (FIMI 2004), Kolkata, 17-18 Sept 2004, Proceeding Vol. pp 35-40.
18.	Paul, B., (2004), Reclamation of mining degraded land with fly-ash in Jharia Coal Field, India – A case study, MGMI, International Conference on Future of Indian Mineral Industry – Challenges and Opportunities (FIMI 2004), Kolkata, 17-18 Sept 2004, Proceeding Vol. pp 229-232.
19.	Paul, B., Kumar, N (2004), Planning of Risk Assessment & Safety Management in Indian Surface Mines, International Symposium on ‘Developments in Surface mining technology – planning, equipment, maintenance and environmental Management (DISMIT 2004), Kolkata Nov 22-23rd , 2004, Journal of “Mines Metals and Fuels, Special issue Nov, 2004, pp 314-317.
20.	Paul, B., (2004). Utilization of coal ash in bio-reclamation of mining degraded lands/abandoned open cast mines, International Symposium on ‘Developments in Surface mining technology – planning, equipment, maintenance and environmental Management (DISMIT 2004), Kolkata Nov 22-23rd, 2004, Journal of “Mines Metals and Fuels, Special issue Nov, 2004, pp 347-351
21.	Paul, B., Gupta, S.K., Misra, D.D., (2003), Knowledge Management - its role in Indian R&D organisation and in corporate sector, R&D Management Conference, N. Delhi, 6-7 Dec 2003. proceeding vol. pp 124-127.
22.	Paul, B., (2002), Future of underground vis-à-vis opencast coal mining in India, Coal Consumer’s Association of India, Conference, Kolkata 21-02-2002.
23.	Paul, B., (2002), Prospective Plan of Coal Industry - 2020 & the role of Information Technology, National Seminar on “Prospect of Mineral Industry-2020” organized by IMMA Kalinga Branch, July 13-14, 2002, Bhubaneshwar
24.	Paul, B., Sinha, A., Chattopadhyay, N.N. (2002), Inventory control in Mining Industry, MGMI July, 01st, 2002, Dhanbad Chapter.

25.	Paul, B., Ghosh, R., Singh, G., (2001), Reclamation of land damaged by underground mining, Workshop on “Reclamation and Rehabilitation of Mined out Areas” Sponsored by MOEF, Feb 16-17th, 2001, Bhubaneshwar, Proceeding Vol.pp.96-101.
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### 3. Invited Lectures (Selected)

1.	‘Environmental Impacts of Mining’, 20 Aug 2015, International Center for Environment Audit and Sustainable Development, (iCED), CAG Jaipur.
2.	‘Community Based Disaster Management Planning’ in the Workshop on ‘Enhancing Institutional and Community Resilience to Disaster and Climate Change’, 16-18 Sept 2014, Disaster Management Department’, Jharkhand and Disaster Management Authority Dhanbad.
3.	‘Environmental Laws and Environmental Clearance’ 21 Mar 2014 Tata Steel, Jharia Division,
4.	‘Environmental Impact Assessment and Case Studies’ 5-6 Nov 2013, National Institute of Technology, Durgapur
5.	‘Mine Fire and Subsidence’ - 5-6 Nov 2013, National Institute of Technology, Durgapur.
6.	‘Environment Issues in Mining’ 19 Aug 2013, International Centre for Information Systems and Audit (ICISA), CAG, New Delhi,
7.	‘Jharia Coalfield Redevelopment Programme - Rehabilitation, Dealing with Mine Fires etc.’, 16 Mar 2010, Pennsylvania State University, Energy and Mineral Engineering Department, College of Earth and Mineral Sciences, PA, USA
8.	‘Environmental Management Plan and Mitigation Measures vis-a vis Mining Industry’ 22.Sept.2013, Directorate General of Mines Safety (DGMS), Dhanbad,
9.	‘Improvement in Stability of Overburden Slope by Ecological Restoration’ 06.Dec.2013, Directorate General of Mines Safety (DGMS), Dhanbad.
10.	‘Combating Environmental Degradation Through Sustainable Mining’, 28-30 Sept 2011, National Workshop Institutional Framework on Sustainable Development , iCED, CAG Jaipur,
11.	‘Intellectual Property Rights and its Management’ 23-24 Jan 2006, CSIR Programme on “Youth for Leadership in Science” organized at CIMFR (Formerly) CMRI (CSIR) Dhanbad.

### 4. Scientific Projects

(4)a	<b>Projects (as Principle Investigator)</b>	1	Assessment of Mine Closure, Talabira-I, Hindalco Industries Limited.
		2	‘Environmental Impact Assessment of Mining Projects’ for Officials of Ministry of Mines, Govt of Afghanistan
		3	Sustainable Mine Planning for Ironore Mining in Mehalahalli, Chitradurga. Vedanta
		4	Study of Illegal Mining in BCCL, CCL and ECL Subsidiaries of Coal India Ltd.
		5	Investigation of Geotechnical Parameters of Steel Slag for Utilization in Underground Coal Mine Stowing, Tata Steel Ltd
		6	Prefeasibility Report of Kenduadih Colliery, Jharia Coalfields, Dalmia Cement.
		7	Risk Assessment of Coal Washery, S&T Mining Co.
		8	Comparative Study Between Underground and Opencast Mining in Parsa Coal Block, Chattisgarh, CSPGCL AEL Parsa Collieries Ltd.

		9	EIA/EMP of Tata Steel Sand Leases (Dungri-Petiya).
		10	EIA/EMP of Tata Steel Sand Leases (Tetangabad).
		11	EIA/EMP of Tata Steel Sand Leases (Bhatua Ranipokhar).
		12	EIA/EMP of Tata Steel Sand Leases (Kunji)
		13	EIA/EMP of Tata Steel Sand Leases (Premsinghdih)
		14	EIA/EMP of Tata Steel Sand Leases (Dungri-Bhowrah)
		15	EIA/EMP of Tata Steel Sand Leases (Mohulbani-Gorkhuti)
		16	Mine Plan of Trans-Damodar Coal Block of West Bengal Mineral Dev. Corp Ltd (2006) for approval from Ministry of Coal- <i>as CI</i> (Completed).
		17	Mine Plan of Tasra OCP of SAIL-ISP (2007) for approval from Ministry of Coal.
		18	EIA/EMP of Sand mining leases of Tata Steel for Environmental Clearance from Ministry of Environment & Forests 7 Nos Completed as CI
		19	Mining Plan of Rock material at Little Andaman Island, Ministry of Shipping <i>as CI</i> (Completed).
		20	Environmental Study of DVC Bermo Mines 4nos
4(b)	Key Members	1	EIA/EMP of NCPH and Kurasia Coal Mines, South Eastern Coalfields Ltd
		2	Environmental baseline studies of Bagjata and Banduhurang sites of UCIL. BRNS, Dept. of Atomic Energy, GOI.
		3	Environmental baseline studies of Angul, Talcher and Meramundali Region (Coal Mining, Thermal Power, Steel Plants, Aluminium Smelter), State Pollution Control Board, Odisha
		4	Regional Environmental Impact Assessment of Goa, Sponsored by Ministry of Environment, Forest and Climate Change (MOEFCC), Government of India, Government of India.
		5	United Nation Commission on Sustainable Development (CSD-18 Session 3-14 May, 2010) Documentation of the Thematic Cluster of Mining, Sponsored by Ministry of Environment, Forest and Climate Change, Government of India.

5	Patents (13 +1)	1	An improved rock bolt for strengthening slopes, rock strata and roofs (ISM, Dhn) - applied
		2	A device and Method for producing controllable and directable concentrated beam of solar radiation (CSIR)
		3	A device for loading blasted coal from the working face in conventional longwall mining. CSIR
		4	A device for providing centerlines in a continuous manner during underground mine/ tunnels construction. CSIR
		5	A device for reinforcing several rock strata in a mine/tunnel. CSIR

		6	A temperature and volume controlled oiling device. CSIR
		7	A process for making an artificial aquifer over a land damaged by mining activities (Using Fly-ash). CSIR, <b>My PhD Thesis Work</b>
		8	A movable canopy for immediate front face of mine or tunnel workings along with roof bolting system of support
		9	A movable roof support canopy as a safeguard for working under fresh roof in an advancing mine tunnel. CSIR
		10	A multi-point anchoring system for grouted-type borehole extensometers using quick or slow setting cement capsules. CSIR
		11	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.
		12	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
		13	A very light permanent floater useful for saving life of an individual in case of any sort of flood or tsunami like calamities. CSIR
		14	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
<b>6</b>	<b>Contribution to Student/School Affairs</b>		
	<b>1</b>	<b>Warden</b> Sapphire Hostel from 2006 to 2011-(06 years), developed the peripheral road, gymnasium, badminton & Volley ball courts.	
	<b>2</b>	Member of Student's "Canteen Committee" for 5 years.	
	<b>3</b>	Co-Convener ISM Srijan, 2011 (Annual Student Youth Festival)	
	<b>4</b>	Convener, ISM Srijan, 2012	
	<b>5</b>	Treasurer, ISM Alumni Association 2006-14 (8 years)	
	<b>6</b>	Member Improvement Group ISM, Dhanbad (2011-and continuing) 3yrs	
	<b>7</b>	Co-Convener ISM Basant 2014 ISM Alumni Reunion	
	<b>8</b>	Training and Placement Incharge of B.Tech & M.Tech Students since 2010. <b>(Industrial Liaison)</b>	
	<b>9</b>	Organizing field visit, excursion and other industry related visits with B.Tech & M.Tech Students	
	<b>10</b>	Working Committee, Bihar Climate Change Action Plan	
	<b>11</b>	Member of Dhanbad District Environmental Management Committee	
	<b>12</b>	Member of Academic Council	
	<b>13</b>	Member of Executive Board, Indian School of Mines, Dhanbad (2015-2016)	

	<b>14</b>		Member of Patent Committee
	<b>15</b>		Conducted ISM entrance Examination in various places like Varanasi, IIT Guwahati, NGRI, Hyderabad, KIT Bhubaneswar, Rabindra Bharati University.
	<b>16</b>		Member of ISM Andhra Pradesh Regional Centre Core Committee.
	<b>18</b>		Visiting Professor- National Institute of Technology, Durgapur, Department of Earth and Environmental Studies.
	<b>19</b>		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.
<b>7</b>	<b>Laboratory Development</b>		
	<b>Geotechnical Laboratory</b>	<b>1</b>	Developed Soil Mechanics Laboratory for B.Tech Environmental Engg. Developed 14 different experimental setup in geotechnical engineering, with written procedures and laboratory manual.
<b>8</b>	<b>Ph.D (Guided)</b>		1. Mr. Arvind Kumar Rai as sole supervisor (Awarded), Topic of Research “Investigation Into Backfill Design of Opencast Mines with Reference to Jharia Coalfield, Eastern India” 2. Mr. Sampurna Nand, Manager (Mining) Chasnalla Colliery, SAIL, (Pre submission) done.(JRF, Registration No. 2010 DR 0132) Topic of Research “Geotechnical Assessment of Overburden for Utilization as Landfill Material in Chasnalla Opencast Colliery, Jharia Coalfield, Eastern India”.
<b>9</b>	<b>Full-Time (JRF) (Ongoing- 04)</b>	<b>1</b>	Ms Neha Shreya as sole supervisor, Geotechnical assessment of Geoliner using flyash of thermal power plants around Jharia Coalfields India (year of Admission: Sept 2011), now Deputed in Portugal Under Erasmus Mundus
		<b>2</b>	Mr Anuradha Kumari as sole supervisor, Investigation into Microbial Degradation of Commercial Explosives and Their Conversion into Bio-Products (year of Admission: March 2012) (Submitted)
		<b>3</b>	Mr Anup Kumar Gupta as sole supervisor, Utilization of Coal mine overburden dump waste as overburden mine filling material at Jharia Coalfields(year of Admission: Feb 2013).
		<b>4</b>	Ms Sasmita Chand as sole supervisor, Investigation and utilisation of LD slag waste from different steel industries in India (Year of Admission Sept 2013).
		<b>5</b>	Ms Juli Kumari, Evaluation of Sediment Yield Characteristics and Fixed Nutrient in Middle Stretch of Damodar River, Eastern India (Year of Admission 2014)
		<b>6</b>	Ms Priti Saha, Water Quality Assessment and Geospatial Mapping in and around industrial city Durgapur, W.B, India (Year of Admission 2013)
		<b>7</b>	Mr Arpan Saha, Study of Arsenic Removal from Water by various Nanoparticles (Year of Admission 2015)
	<b>Jointly ISM JRF as Co-Guide</b>	<b>8</b>	Mr. Naresh Kumar, ISM JRF, Dewatering of underground coal mine, “Modelling of pumping network in underground mines” (Year of Admission, February 2013)- Dr.Sibayan Sarkar,(Guide) Mech Engg Dept
	<b>Supervising (Part-Time) (Ongoing)</b>	<b>1</b>	Mr. Anand Prakash, Manager (Environment), <b>JP Cement</b> ,Topic of Research “Plastic Waste Utilization Through Co- Processing in Cement Kiln”

	<b>Most of them from Industries</b>	2	Mr Madhurya Thakur, <b>Assistant Controller of Patents, Kolkata Patent Office</b> , Topic of Research “Geotechnical Assessment of Overburden Waste for Utilisation as Embankment and Pavement Construction Material with reference to Eastern Part of Jharia Coalfield..
		3	Mr Achutya Krishna Ghosh, Scientist G, Chief Scientist, CMRI, Development of a CSR Model for Indian Mining Areas vis-à-vis Socioeconomic Externalities with Special Reference to Jharia Coalfield, Jharkhand, India” (year of Admission Sept 2012)
		4	Mr Praveen Ranjan Prasad, <b>Coal India Limited</b> , “Development of Sustainable Framework for Coal Mining Industry with reference to Coal India Limited”(Year of Admission Sept, 2012)
		5	Mr Neeraj Kumar, <b>Scientist, CIMFR</b> Greenhouse Gas Emission and its Reduction Option for Gassy Underground Coal Mines in Damodar Basin, India” (year of Admission Sept 2012.
		6	Ms Amita Prasad, Lecturer Department of Chemistry, Patna Women’s College “ Assessment of spatial and temporal variation of Benzene and its derivatives in air by using GIS in and around Patna City. (Year of Admission Sept 2012)
		7.	Mr Rahul Sarkar, <b>Sr.Manager Moonidih Area, BCCL</b> , “Investigation of Land Subsidence of Moonidih Underground Coal Mine and Prediction of its Environmental Impacts in the Southern Part of Jharia Coalfields” (Year of Admission May 2013).
		<b>Supervising (Part Time) as Co-Guide</b>	1
		2	Mr. A. Manjunath, Investigation of Environmental and Socio-economic Impact of Mine Closure with reference to Kolar Gold Fields, Year of Admission Sept 2013)- <b>Dr.P.S.Pal, Associate Prof, Mining Engg Dept</b>
	<b>(17 PhD in Total (two guided and 15 ongoing)</b>		
10	<b>M.Tech Supervision</b>	2015	Assessment of Exhaust Emission of Diesel Engine with Different Blends of Bio-diesels-Mr Ankur Nalgundkar, Adm No 2013MT0159
		2015	Utilization of LD Slag to enhance the geopolymeric properties of coal combustion residues, Mr Jagdeep Nayek, Adm No 2013MT0131
		2014	Physico-chemical Characterisation and Estimation of Fluoride in Agricultural soil of Sidhi District, Madhya Pradesh, India- Mr Bijendra Kumar, Adm No 2012MT0206
		2014	Geospatial Assessment of Mining Activities in Jharia Coalfield and its Environmental Planning., Priti Saha Adm No 2012MT0133
		2013	Multi-Criteria Evaluation of Sustainability of Coal Mining Areas Using Analytical Hierarchical Proces (AHP) and Global Reporting Initiative (GRI) Guidelines- Ms Manjari Singh, Adm No 2011MT0098
		2013	Evaluation of Spatial Distribution of Erosion Potential of Jharia Coalfields by Geographical Information System- Mr Vinod Babu.V Adm No 2011MR0037



		<b>2012</b>	Assessment of Fugitive Emissions and Selection of Cost Based Mitigation Methods in Cement Plant- Mr.Brajesh Sharma Adm No. 2010MT0123
		<b>2012</b>	Geotechnical Assessment of Natural Liners Using Flyash as Constituent Material- Mr Aviral Singh Rana, Adm No 2010MT0126
		<b>2006</b>	Investigation into Hydraulic Characteristics and Leachates of Minefill Material- Devendra Kumar Yadav, Adm No 612932, May 2006
<b>11</b>	<b>International Student</b>	<b>2015</b>	Assessment of Environmental Impacts of Coal Mining Activities on River Damodar around Dhanbad Region, Jharkhand, India. Cindy Lorena Ospina Gallego, Adm No. AREAS 02 2014, Universitat Politècnica de Catalunya, BarcelonaTech (UPC), Spain (Under Erasmus Mundus Areas Plus Program)
<b>12</b>	<b>Subjects Taught</b>		
	<b>M.Tech</b>	<b>1</b>	Environmental Aspects of Mining Industry
		<b>2</b>	Environmental Aspects of Mining, Metallurgy & Thermal Power Industries
		<b>3</b>	Environmental Audit & EMS, ISO 14000, SA 8000, OHSAS
		<b>4</b>	Environmental Geotechnology
		<b>5</b>	Environmental Planning for Mining (M.Tech Mineral Explo)
		<b>6</b>	Environmental Engineering (M.Tech Fuel Engineering)
	<b>B.Tech</b>	<b>1</b>	Soil Mechanics/GeoTechnical Engineering (B.Tech Env Engg, V Sem)
		<b>2</b>	Industry & Environment (B.Tech Env Engg, IV Sem)
		<b>3</b>	Environmental Auditing, (B.Tech Env Engg, VIII Sem)
		<b>4</b>	Occupational Health & Safety, OHSAS(B.Tech Env Engg, VII Sem)
		<b>5</b>	Energy & Environment (B.Tech Env Engg, VIII Sem)
		<b>6</b>	Risk Assessment and Disaster Management (B.Tech Env Engg, VIII Sem)
		<b>7</b>	Earth System Science (B.Tech Comon, I & II Sem)
		<b>8</b>	Surface Environment (B.Tech Mining Engg, VII Sem)
		<b>9</b>	Environmental Aspect of Mining (IX B.Tech + M.Tech ME Dual Degree)
		<b>10</b>	Environmental Geotechnology (B.Tech, V Sem)

13	<b>Scientific Experience</b>  <b>(3 years and 8 months)</b>  <b>In CSIR/CIMFR</b>	Central Mining Research Institute, Dhanbad as a Scientist (CIMFR). Period: 26/12/2001 – 16/08/2005. <b>(3 years and 8 months approx.)</b> 1. R&D in Mining/Environmental Engineering, Intellectual Property Management. 2. Participated in development of Jharkhand State Mineral Policy and compiling draft proposal from CIMFR. 3. Training in Task 3,Activity IIB, EMCBTA, World Bank Project and in various IP Mgmt courses by CSIR Hq; 4. Experience of Coordinating & Filing Patents: 34 Nos. Copyright : 9 Nos. Trademark : 1 No.
14	<b>Industrial Experience:</b>  <b>(7 Years 6 Months)</b>  <b>Tata Steel Coal Mines</b>	<b>As a Manager( Mining) in Tata Steel</b> <b>(Jamadoba Colliery, Digwadih Colliery, 6&amp;7 Pits Colliery)</b> Period 01/07/1994 – 25/12/2001 <b>(7 years and 6 months approx).</b>  1. Land Reclamation over mining subsided area.(Jamadoba). 2. Coal production (in various u/g coal mines) 3. Shaft Sinking 350m; Stone Drift (Underground to underground; 14-11 seam) 4 nos each of 200 m inclines length. Digwadih Colliery. 4. Shotcreting & Guniting, Digwadih Colliery 5. Longwall Mining at 6 & 7 Pits, Jamadoba 6. Depillaring Districts of 14 seam, 2 Pit, Jamadoba 7. SDL section Stowing with fly-ash/sand in underground mines. 8. SDL, Road Header operations, Jamadoba