

C V of Dr. Prasoon Kumar Singh

Name and Designation	<p>Dr. Prasoon Kumar Singh <i>Associate Professor,</i> Department of Environmental Science & Engineering Indian Institute of Technology (Indian School of Mines), Dhanbad - 826004 Phone – (0326)-2296624, 2235415 (O) 09431711057 (R) Fax – (0326) 2296624/2210028/2203042/2203080/2206319 E-mail: pks0506@iitism.ac.in, pks0506@yahoo.co.in</p>
Date of Birth	June 5 th , 1964
Qualification:	<p>M. Sc. (Geology), Patna University M. Tech. (Environmental Science & Engineering), IIT(ISM), Dhanbad Ph.D.(Geology), VBU, Hazaribag</p>
Specialization:	<p>Environmental Geology, Environmental Hydrogeology Remote Sensing & GIS and Noise Pollution,</p>
Research Interest	<ul style="list-style-type: none"> • Groundwater Quality & Quantity Assessment • Environmental Geochemistry • Environmental Hydrogeology • Remote Sensing & GIS applications in Environmental Management • Noise Pollution, Soil Quality Assessment
Research Publication: <i>(A list of research papers published in refereed journals is given below.)</i>	<ul style="list-style-type: none"> • International & National Journal:61 • International Conferences : 34 • National Seminar/ Conferences: 38 • National Journal on Environment in Hindi: 5 • National Seminar on Environment in Hindi: 9
Research Guidance	
<ul style="list-style-type: none"> ◆ Ph.D . in Env. Sc. & Engg: ◆ Ph D Completed - Ten PhD Ongoing - Twelve (in the field of Land Use Planning & Management & in the field of Groundwater Resource Evaluation & Management) ◆ M Tech (Env. Sc. & Engg.) Dissertation M.Tech. – Completed- Twenty one (in the field of Groundwater Quality & Quantity Assessment) M. Tech. –Ongoing -Three ◆ M. Sc.(Environmental Science) Two – Completed - (in the field of Groundwater Quality & Quantity Assessment) 	
Membership of Professional Bodies	<ul style="list-style-type: none"> • Member of International Association Of Hydrological Sciences (IAHS), Institute of Hydrology. Wallingford, Oxfordshire, U.K.; Membership No. – 6094.

	<ul style="list-style-type: none"> • Life Member of the Indian Association of Hydrologists, Roorkee (LM-1663). • Fellow of the Society of Earth Scientists, Lucknow, and Fellowship no. is F/272. • Life Membership of Indian Geological Congress (LM – 811). • Life Membership of the Mining, Geological and Metallurgical Institute of India (MGMI), Kolkata (LM-10211). • NABET-QCI accreditation for preparation of EIA as Functional Area Expert for Geology, Landuse & Hydrogeology. • Life Member of the Indian Water Work Association (LM-8066)
<p>Honors/ Awards</p>	<ul style="list-style-type: none"> • <i>Prize Book Award</i> for Securing Top Position in M.Sc (Geology) Examination from Patna University, Patna. • Best paper award in <i>Environmental Impact & Risk Assessment</i>. At NEERI, Nagpur, 1995. • Presently serving as an Expert Member of the District Environmental Appraisal Committee, (DEAC) of MoEF & CC for Dhanbad district, Jharkhand. • Question Paper Setter of Union Public Service Commission Examination of the year 2012, 2013 and 2015 in the field of Environmental Science & Geology. • Editor of the International Journal of Earth Sciences and Engineering Published by CAFET-INNOVA Technical Society Hyderabad, INDIA, Registered by Government of Andhra Pradesh Under the AP Societies Act. 2001 Regd. No.: 1575. • Remained as an Expert Member of "Environmental Clearance for Sustainable Sand Mining and Mining of Minor Minerals" of MOEF & CC, New Delhi. • External Examiner of Ph. D. Thesis of Mizoram University, Aizwal and Vinoba Bhave University, Hazaribag. • Reviewer for national and International Journals: - (Environmental Earth Science International Journal, Journal of Geology and Mining Research, Journal of Environmental Science & Engineering (NEERI), Hydrological Journal). • Nominated as a BOCS Member of the Department of Geology, Mizoram University & Vinoba Bhave University. • As a Convener, organized a two days National Conference on "Sustainable Development of Groundwater Resources in Industrial Regions" (SDGRIR 2012) held on March 22nd-23rd, 2012 in the Department of Environmental Science & Engineering, IIT (ISM), Dhanbad. • As a Convener, organized two days National Seminar on "Recent Approaches to Water Resources Management" (RAWRM-2013) held on December 9th-10th, 2013 in the Department of Department of Environmental Science & Engineering, IIT (ISM), Dhanbad. • Worked as Principal Investigator of two ongoing R&D Projects – one from Ministry of Water Resources, New Delhi & another from

	<p>University Grants Commission, New Delhi.</p> <ul style="list-style-type: none"> Organized five numbers of the three days Professional Development Course as a Course Investigator on “Water Resource Management in Mining & Industrial Areas” to the Executives and Industrial officials.
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LIST OF PH.D. SCHOLARS GUIDED

S.No.	Student's Name	Title	Status	Role
1	Ruchi Singh	Impact of Mining and Urbanization on Land use and Vegetation Diversity in Angul-Talcher Region, Orissa	Awarded. in Feb 2012	Guide
2	Dipanwita Bhagat	Groundwater resource evaluation and its qualitative assessment in Jharia Coalfield region, Jharkhand	Awarded. in Feb 2013	Guide
3	PrabhunathSingh	Study of water resources and its management in and around the Ranchi Township area in Jharkhand, India. (Part Time)	Awarded. in June 2015	Guide
4	Mukesh Kumar Mahato	Quantitative and Qualitative assessment of water resources with contaminant transport modeling of East Bokaro Coalfield Area. (Part Time)	Awarded. in December 2015	Guide
5	Ashwani Kumar Tiwari	GIS based aquifer vulnerability assessment & Qualitative analysis of water resources in a coal mining area, Jharkhand	Awarded. in Feb 2013	Guide
6	Binay Prakash Panigharhy	Assessment of groundwater level fluctuation with respect to recharge in Jharia Coalfield region, Jharkhand (UGC JRF)	Awarded. in Dec 2016	Guide
7	Anjani Kumar	Evaluation of mine water & Development of suitable techniques for ascertaining its suitability for proper management in Jharia coal mining region, Jharkhand (Part Time)	Awarded. in Feb 2017	Guide
8	Ritu Ranjan Sinha	Evaluation of infiltration behavior & assessment of water poverty index in an around Dhanbad Jharia Township area, Jharkhand ,India	Awarded. in Feb 2017	Guide
9	Shonam Sharma	Estimation of the relationship between trends of seasonal Rainfall with Aquifer Potential in Mining area and Development of Spatial Seasonality Index	Awarded. in Feb 2017	Guide
10	Sujata Gupta	Impact of Mining & Allied activities on Landuse/ Landcover and Forest Vulnerability in East Bokaro Coalfield region of Jharkhand(Part-Time)	Awarded. in Aug 2018	Guide
11	Poornima Verma	Assessment of Hydro geochemistry of Water Resources & Development of Contamination Index for Bokaro District.	Thesis Submitted for evaluation	Guide
12	Madhu Kumari	Evaluation of Conventional and Non-conventional Energy Resources and Assessment of its Environmental Impact in Ranchi Township Area, Jharkhand. (Part-Time)	16.04.2014 Ongoing	Guide
13	Parveen Purty	A GIS based approach for Watershed Management and Delineation of Potential Run-off/Rainwater Harvesting Sites in part of East Singhbhum district,	11.7.2014 Ongoing	Guide

		Jharkhand, India		
14	Amit Ashish	Qualitative Evaluation of Water and Soil Resources with Development of Metal Pollution Index and Risk Study in Part of Ghaziabad District, Uttar Pradesh, India. (Part-Time)	18.12.2015 Ongoing	Guide
15	Deepak Naresh Dhopte	Impact of assessment of water resources on modelling of water pollution parameters in and around industrial areas of Asansol, West Bengal, India. (Part-Time)	4.03.2015 Ongoing	Guide
16	Nishi Kant	Eco hydrological effects of landscape pattern and determination of health risk assessment with reference to heavy metals in the drinking water of Jamshedpur Township Area Jharkhand, India	17.7.2015 Ongoing	Guide
17	Soubhagya Kumar Tripathi	Impact of Coal Mining Activities near Hirakud Reservoir and Ib&Bheden rivers in Talabira Mining Area, Undivided sambalpur district, Orissa, India (Part-Time)	22.06.16 Ongoing	Guide
18	Soumitra Singh	Assessment of Land & Water resources in coal mining area in Jharkhand state, India and Development of suitable model for conservation of the resources. (Part-Time)	21.06.16 Ongoing	Guide
19	Damodar Prasad	Quantitative and Qualitative Assessment of water resources around mine fire & non-mine fire areas in Jharia coal field, Jharkhand, India (Part-Time)	16.08.16 Ongoing	Guide
20	Shivam Shaw	Aquifer Vulnerability Assessment and estimation of groundwater suitability by using different models and development of suitable techniques for management of groundwater resources	01.08.17 Ongoing	Guide
21	Deep Shikha	Qualitative Assessment of Groundwater and Soil near Mining and Industrial areas and In Situ Treatment of Contaminated Groundwater and Soil by Suitable Techniques of Bokaro District, Jharkhand, India	27.12.17 Ongoing	Guide
22	Nitish Kumar	Development of a Low Cost Method to treat Groundwater at Sonbhadra District of Uttar Pradesh, India	29.07.18 Ongoing	Guide

LIST OF M.TECH. STUDENTS GUIDED FOR DISSERTATION WORK

S.No.	Student's Name	Title	Status	Role
1	Babu Siddharth Sankar Biswal	Impact of Mining and Ancillary Industry on Environmental Hydrogeology in Angul-Talcher-Meramundali Region of Orissa.	Completed in 2008	Co-guide
2	Bitthal Upadhyay	Water Demand Management, Forecasting and Qualitative Assessment in and around ISM University	Completed in 2009	Guide
3	Sneha Gautam	Assessment of Aquifer potential of Dhanbad township area and designing of rooftop rainwater harvesting structure in CME campus, ISM	Completed in 2010	Co-guide
4	Anoj Kumar Choudhary	Identification & assessment of fire affected families in fire prone area of the Jharia	Completed in 2010	Guide

		Coalfield, Dhanbad district, Jharkhand		
5	Ramakant Gadhewal	Computational Fluid Dynamics analysis on Beehive Coke Oven	Completed in 2011	Guide
6	Ravi Makawana	Impact of Mining and Urbanization on Landuse in Jharia Coalfield region	Completed in 2012	Guide
7	Arun Kumar	Assessment of Climatic factors and Water Level Fluctuations in and around ISM Campus.	Completed in 2012	Guide
8	Udit Kumar Sao	Hydrogeological investigation in an around Bastacolla coal mining area, Jharkhand	Completed in 2013	Guide
9	Ansu Rakesh	Geo environmental studies in an around singra mining area of Jharia coalfield using Remote Sensing & GIS	Completed in 2013	Guide
10	Subash Chandra	Evaluation of Hydrogeological Factors their association and relationship with Water Level Fluctuation of Dhanbad District, Jharkhand	Completed in 2014	Guide
11	Meena Kumari	Flow properties of Flyash and its derivatives for their bulk utilization in Mining Sector	Completed in 2014	Co-guide
12	Supriya Kumari	Impact of Climate Change on Ground Water resources, near IB Valley Coalfield, Jharsuguda, Odisha	Completed in 2015	Guide
13	Isha Medha	Groundwater zone mapping and management through modeling in the municipal area of Dhanbad District, Jharkhand, India	Completed in 2015	Guide
14	Sumanta Kumar Biswal	Evaluation of Water Quality Pollution Indices for a Part of Bokaro District, Jharkhand ,India	Completed in 2016	Guide
15	Nirmalendu Sekhar Mishra	Evaluation of Water Poverty Index in an Around Dhanbad-Jharia Urban Area, Jharkhand ,India	Completed in 2016	Guide
16	Deepak Kumar	Qualitative Assessment of Tap water of different railway stations under Dhanbad division, and Design of low cost water treatment methodology	Completed in 2017	Guide
17	Abhijit Debnath	Environmental Traffic Noise Modelling of Dhanbad Township Area- A GIS Based Approach.	Completed in 2017	Guide
18	Shraddha Singh	Quantification of Groundwater Level and its variations in Dhanbad district and development of groundwater flow model.	Completed in 2017	Guide
19	Chirag Chopra	Evaluation of hydro geological factors , water table behavior and characterization of groundwater near asansol area and development of suitable techniques for conservation	Completed in 2018	Guide
20	Preetam Singh	Recycling of waste water clothes and their conversation into value added products	Completed in 2018	Guide
21	Shammi Kapoor	Isolation of micro-fine-silica from fly ash and its application on different industries	Completed in 2018	Guide
22	Chhavi Kumar Jangid	Groundwater Vulnerability Assessment using GIS based Drastic model and Solute Transport Model in Dhanbad District.	Ongoing 2018	Guide
23	Ankit Kumar Sharma	Comparative Groundwater Quality Assessment based on CCME & NSF WQI	Ongoing 2018	Guide

		of Ranchi city, Jharkhand		
24	Pradhuman Singh	NAPLs Contamination in Soil and Aquifer Identification of BAT for Remediation of Contaminated Sites	Ongoing 2018	Guide

Fostering of new interdisciplinary collaborations between scientists

S. No.	Details of Course	Institution & Place	Period	Total Duration (Days)
1	Industry Interaction Meet	IIT (ISM) Dhanbad	March 2017	1
3	Design and Implementation of RWH for Augmentation of rural water supply	IIT (ISM) Dhanbad	February 25-27, 2016	3
5	Challenges and opportunities for management of water supplies in rural areas (COMWRA)	IIT(ISM) Dhanbad	January 23-24, 2015	2
6	Research Opportunity in hydrology and water resources under climate change	IIT Guwahati	April 3, 2015	1
7	Brain storming workshop on 'Geostatistics for Natural resource Modelling (BSWG-2014)	IIT (ISM) Dhanbad	February 28, 2014	1
10	A Primer on Geostatistics	AGL/IIT (ISM) Dhanbad	January 16-20, 2012	5
11	Regional Workshop on Geogenic Contamination of Groundwater	CGWB, MER, Patna.	March 21-22, 2009	2
12	Orientation Training Programme for Young Scientists	CMERI, Durgapur	January 3-7, 2005	5
13	Training Course on Environmental Compliance for Mining Industry , Task-2, Activity II B of EMIBTAP : Mining Sub-component at	CME,IIT(ISM) Dhanbad	April 8 to May 17, 2002	6 Weeks
14	Course On GIS And Remote Sensing	IIT(ISM) Dhanbad & PCI Datamatics, Calcutta	March 01-05, 2001	5
15	Short Term Course On Pollution Management And Control For Sustainable Development In Mining And Allied Industrial Area.	CMRI, Dhanbad	December 13-17, 1994	5
16	Meet on Remote Sensing Satellite Data Products For Mining Industry With Special Emphasis On Environmental Aspects	NRSA Data Centre, Hyderabad & CMRI, Dhanbad	January 20-22, 1994	3

Development of Lab facilities

LAB DEVELOPMENT	
1	In charge of Land use & Hydrological lab of ESE Department
2	Developed Remote Sensing & GIS Lab of ESE Department
3	Developed Rainwater Harvesting Structure in CME Campus

OTHERS:

- Serving as **Training Incharge of B. Tech & M. Tech. Students** in the ESE Department
- **DSC External Member** of the Department of Applied Geology, IIT (ISM), Dhanbad.
- Served as **Senate Member** of IIT (SM) from 2016 to 2018.
- Served as an Expert member in the M.Tech & JRF Selection Committee of the ESE Department.

BOOK CHAPTER CONTRIBUTION

- **Prasoon Kumar Singh**, Ashwani Kumar Tiwari and Poornima Verma "Evaluation of Water Level Behavior in Coal Mining Area, Adjacent Township and District Areas of Jharkhand State, India., *Clean and Sustainable Groundwater in India 235-278 (2017)*.
- **Prasoon Kumar Singh**, Binay Praksh Panigrahy and Poornima Verma and Bijendra Kuamr "Evaluation of Surface Water Quality Index of Jharia Coal Mining Region and Its Management of Surface Water Resources., *Environmental Pollution, Water Science and Technology Library 429-437 (2017)*.
- **Prasoon Kumar Singh** and A. K. Pal " Noise Pollution: A Silent Killer", Rural Development and Environment, Edited by S.B. Verma, Mahendra Singh and Rajeev Kumar, Deep & Deep Pub., New Delhi,(ISBN 81-7629-883-2).(2006).
- Air Pollution Management (pp 248-268) and Noise Pollution Management (pp 269-328), in the Book entitled "Environmental Management in Mining Areas", edited by N C Saxena, Gurdeep Singh and Rekha Ghosh, Published by *Scientific Publishers (India)*, Jodhpur, (2002).

TRAINING PROGRAMME CONDUCTED – As a Course Coordinator

S. No.	Details of Course	Institution & Place	Period	Total Duration (Days)
1	Evaluation of Water Resources and Its Management	IIT(ISM), Dhanbad	December 10-12, 2012	3
2	Management and availability of water resources near mining and industrial areas	ISM Industry Institute Interaction Facility, Kolkata	December 28-30, 2015	3
2	Management of water resources near mining and industrial areas	IIT (ISM), Dhanbad	November 9-11, 2016	3
4	Environmental Management: Special Emphasis on Water Resources near Industrial Areas	ISM Industry Institute Interaction Facility, Kolkata	December 27-29, 2017	3
5	Groundwater Resources Management in Industrial Areas	IIT (ISM), Dhanbad	August 08-10, 2018	3

CONFERENCES CONDUCTED- As a Convener

S. No.	Details of Course	Institution & Place	Period	Total Duration (Days)
1	Sustainable Development of Groundwater Resources in Industrial Region	IIT(ISM), Dhanbad	March 22- 23, 2012	2
2	Recent Approaches to Water Resources Management	IIT(ISM), Dhanbad	December 09-10, 2013	3

SIGNIFICANT CONTRIBUTION TO PROJECTS & CONSULTANCY**(A) RESEARCH & DEVELOPMENT PROJECTS**

S.No	Project Title	Name of the Sponsored	Role of Assesses	Amount (in Lakhs)	Details of the Work
1	Assessment of groundwater level fluctuations with respect to changing patterns of rainfall in Jharia coal mining region Project No.: UGC (79)/ 2012-2013/318/ESE	UGC	PI	9.256	Final report submitted in May 2015
2	Estimation of aquifer potential in Jharia coal mining region with suitable techniques to improve the recharge Project No.: MoWR(3)/2012-2013/308/ESE	MoWR	PI	28.547	Final report submitted in March 2017

(B) CONSULTANCY PROJECTS

S.No	Project Title	Name of the Sponsored	Role of Assesses	Details of the Work
1	Groundwater Monitoring around Kirandul BIOM Dantewada	NMDC	Member	On going
2	Soil Pollution Assessment around Kirandul BIOM Dantewada	NMDC	Member	On going
3	Water and waste water monitoring assessment around iron ore mines	NMDC	Member	Completed
4	EIA/EMP of RolepHydroproject	VEL ENERGY PVT. LTD.	Member	Completed
1.	Evaluation of Sustainable Development Project at ECL under MOU 2012-2013 (Second Phase)	ECL	PI	Completed
2.	Evaluation of Sustainable Development Project at ECL under MOU 2012-2013 (First Phase)	ECL	PI	Completed
3.	Preparation of Environmental Statement in respect of DVC Bermo Mines.	DVC	PI	Completed
4.	Hydrological and Water Quality studies for Panandharo, Umarsar and Akrimota mining area of GMDC	GMDC	PI	Completed

5.	Regional Environmental Management Plan of Angul-Talcher- Meramundali Area of MCL, Orissa	SPCB, Bhubaneswar	Member	Completed
6.	EIA/EMP study of Madhuban and Damuda area, Dhanbad.	BCCL	Member	Completed
7.	Socio-economic Survey of Affected Families at Fire & Subsidence Areas in Jharia Coalfield.	JRDA	Member	Completed
8.	Environmental Monitoring of DVC Chandrapura	DVC	Member	Completed
9.	Environmental Monitoring of DVC Bokaro Thermal	DVC	Member	Completed
10.	Environmental Monitoring of Unit 7,8, DVC Chandrapura	DVC	Member	Completed
11	Compliance of Forestry clearance condition no. 6, 7, 10 and 18 for Ghanudih and Bastacolla area.	BCCL	Member	Completed
12	Training Program & Study Tour on `Sustainable Management of Mineral Resources in Nigerian Mining Sector` under World Bank aided Project on Capacity Building in Environmental Management.	World Bank	Member	Completed
13	Unit-Based Training Workshop for the Officials of M P State Pollution Control Board on `Environmental Pollution Control in Mines.`	MP SPCB	Member	Completed
14	EIA/EMP study of Madhuban and Damuda area, Dhanbad.	BCCL	Member	Completed