

## CURRICULUM VITAE

### Dr. Vipin Kumar

Assistant Professor  
Department of Environmental Science and Engineering  
Indian Institute of Technology  
(Indian School of Mines) Dhanbad  
Dhanbad – 826 004, Jharkhand, India



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### Area of Specialization:

Microbiology, Biotechnology, Microbial Ecology

### Research Interest:

Environmental Microbiology, Biotechnology, Bioremediation, Microbial degradation of natural substances, Solid waste management, Fly-ash utilization, Biological reclamation of soil.

### Educational Qualification:

- **Ph.D. Environmental Biology (Specialization in Microbiology)** in 2008.  
**Ph.D. Thesis:** "Impact studies of Fly-ash as carrier in Bio-formulations, Shelf life, Bio-efficacy and Genetic variation".
- **M.Sc. Microbiology** with CGPA 09.13 out of 10.00 (86.73%) in 2005.  
**M.Sc. Thesis:** "Incidence of Beta-lactamase producing Gram-negative Clinical isolates and their Antibiotic susceptibility pattern".

### Teaching:

Based on my teaching experiences I am teaching following undergraduate and postgraduate courses

- Environmental Microbiology
- Environmental Biology and Ecology
- Ecology and Environmental Microbiology
- Solid Waste Management
- Earth System Science
- Solid and Hazardous Waste Management and Land Reclamation
- Pollution Control & Waste Management
- Pollution Control & Environmental Management

### Membership of Professional bodies

- Fellow of Geological Society of India. (F. No. 3325)
- Life member of Geological Society of India. (LM No. 1733)
- Life member of The Mining, Geological & Metallurgical Institute of India (MGMI) Kolkata (LM No. 10126)
- Life member of Indian Water Works Association (IWWA) Mumbai. (LM No. 7266)
- Life member of The Indian Science Congress Association, Kolkata (LM No. L 20805)
- Life member of The Institute of Applied Sciences (IASc.), Allahabad
- Member Indian Phytopathology, New Delhi, Society for Promotion and Innovation of Bio-pesticides New Delhi, The Bioscan, Microbial World, Society of Plant Protection Sciences.

### Participation in Administrative/Extracurricular Activities

- Faculty In charge MINENVIS Centre, Department of Environmental Science and Engineering, III (ISM), Dhanbad

- Faculty In charge Time Table Committee, Department of Environmental Science and Engineering, IIT (ISM), Dhanbad
- Faculty In charge Microbiology Laboratory, Department of Environmental Science and Engineering, III (ISM), Dhanbad
- Faculty In charge Computer Laboratory, Department of Environmental Science and Engineering, III (ISM), Dhanbad
- Member, Tabulation Committee, Examination Section, III (ISM), Dhanbad

#### Editor/Reviewer for Refereed Journals/ Newsletters

- Section Editor [Engineering] of Recent Research in Science and Technology: An International referred Journal for all Aspects of Science Research. [http://recent-science.com/pages/view/editorial\\_board](http://recent-science.com/pages/view/editorial_board)
- Editor of MINENVIS Newsletter on Environmental problems of Mining. ENVIS Centre, Dhanbad.
- Reviewer of various Journals.

#### Teaching/Research Experience:

Position	Institute/Project	Duration	Area of specialization
Assistant Professor	Dept. Environmental Science & Engg. III (ISM), Dhanbad, India	March 10 <sup>h</sup> , 2010 to till date	Environmental Microbiology, Biotechnology, Bioremediation
Research Associate (R.A)	Referral laboratory, SHIATS, Allahabad, sponsored by DBT, Govt of India	Nov 1 <sup>st</sup> , 2009 to March 9 <sup>th</sup> , 2010	Quality control of bio-fertilizers and bio-pesticides & analysis of pathogenic micro-organisms.
Senior Research Fellow (SRF)	Referral laboratory, AAI-DU, Allahabad, sponsored by DBT, Govt of India	Nov 1 <sup>st</sup> , 2007 to Oct 31 <sup>st</sup> , 2009	Quality control of bio-fertilizers and bio-pesticides & analysis of pathogenic micro-organisms.

#### Details of the Project Assignment Undertaken/Ongoing:

Sl. No.	Title	Funding agency	Role	Amounts (Lacs)	Status
1	Assessment of soil fertility through application of Fly-ash based Bio-fertilizer in combination with Bio-compost. Sanction no. FRS(23)/2010-2011/ ESE	MHRD	PI	5.64	Completed
2	Utilization of Fly-ash as carrier in Bio-fertilizer and Bio-pesticide formulation. Sanction no. 2010/MRP/ESE/08/ Acad.	MHRD	PI	0.95	Completed
3	EIA Studies in the impact of leaching due to storage of fly-ash on the surface and mined voids on dumping area of Rajrappa site. (CONS/2296/2013-14)	Hindalco Muri	Expert Member	15.16	Completed
4	Regional Environmental Impact Assessment study of Goa region MoEF(13)/2011-12/294/ESE	MoEF	Co-PI	202.22	Completed
5	Monitoring of Environmental parameters in respect of ambient air, stack monitoring, noise level and	BTPS	Expert Member	5.23	Completed

	effluent discharge at BTPS B (O&M) CONS/1440/11-12				
6	Study on Compliance of Forestry Clearance condition in respect of Ghanoodih and Bera Projects of Bastacolla Area, BCCL, Dhanbad BCCL/BA/CGM/Estate/10/175	BCCL	Expert Member	12.68	Completed
7	Preparation of EIA of Patherdih Coal Washery, BCCL, Dhanbad	BCCL	Expert Member	17.00	Completed
8	Preparation of EIA of Dugda Coal Washery, BCCL, Dhanbad	BCCL	Expert Member	17.00	Completed
9	Microbiological quality of drinking water. (CONS/2849/15-16)	Sky Lark, Dhanbad	CI	0.11	Completed
10	Biodiversity study at Rolep Hydro project, Sikkim (CONS/2731/15-16)	Velanakani Energy Pvt. Ltd.	Co-CI	11.90	Completed
11	Waste water management and control of water pollution from plant and mines of BIOM, Bacheli complex, Dantewada, Chhattisgarh Linkup No. 362	NMDC, Limited	Expert Member	14.25	Completed
12	Biodegradation of polycyclic aromatic hydrocarbons by efficient bacterial consortium	TEQIP - II	PI	1.50	Completed
13	Soil and fly-ash characteristics for mine backfilling of Chotia Mines, Chhattisgarh. (Cons/3252/16-17)	BALCO	CI	1.64	Completed
14.	Environmental Impact Studies of Chotia Coal Mines (Cons/3367/16-17)	BALCO	CI	16.10	Ongoing

#### Details of the Short term course/Training program organized:

Sl. No.	Title	Role	Amounts (Lacs)	Status
1.	Sustainable waste management practices (CONS/3097/15-16)	Course Coordinator	2.85	Completed
2.	Recent Trends in waste management practices (CONS/3221/16-17)	Course Coordinator	3.09	Completed
3.	Ambient air quality assessment, prediction and control. (Cons/3236/16-17)	Course Co-coordinator	2.40	Completed
4.	Advanced Treatment of solid and Hazardous Waste (Cons/3329/16-17)	Course Coordinator	1.96	Completed

#### Ph.D Thesis Guided/Guiding

Sl. No.	Students name & Reg. No.	Date of Joining	Topic	Status	Role
1	Pratishtha Gupta (2015DR0184)	July, 2015	Bioaugmentation assisted phytoextraction of heavy metals using phosphate solubilizing bacteria in soils near-by tannery industrial area of the	Ongoing	Guide

			Kanpur city, India		
2	Rupa Rani (2014DR0138)	July, 2014	Biodegradation of organochlorine pesticides by plant growth promoting rhizobacteria (PGPR)	Ongoing	Guide
3	Gauri Gupta (2014DR0001)	January, 2014	Effectiveness of degradation potential of polycyclic aromatic hydrocarbons by bacterial consortium	Ongoing	Guide
4	Mamta Besra, (2014DR0058)	January, 2014	Studying the antimicrobial activities of herbal plants extract with special emphasis on dental caries	Ongoing	Guide
5	Rupam Kumari (2013DR1070)	August, 2013	Study on accumulation ability of heavy metals and growth pattern water fern ( <i>Azolla filiculoides</i> )	Ongoing	Guide
6	Arti Hansda (2013DR0263)	July, 2013	Isolation and characterization of Cu (II) remediating <i>Pseudomonas</i> sp. and their plant growth promoting activity	Ongoing	Guide
7	Zeba Usmani (2013DR0245)	July, 2013	Study on heavy metals accumulation from coal fly-ash through Vermicomposting using Indigenous earthworm species	Ongoing	Guide
8	S. K. Mritunjay (2013DR0034)	January, 2013	Microbiological Safety Evaluation and Recommendation of Raw Eaten Salad Vegetables	Ongoing	Guide
9	Ashwani Kumar (2012DR0086)	July, 2012	Analysis of contaminant transfer from coal-fired thermal power plant in soil, surface water and ground water	Ongoing	Co-guide
10.	Shrabani Sen (2010DR0046)	December, 2010	A Comparative Study of Different Manures And Fly-Ash to Find Out Their Optimum Combination for Efficient Re-Vegetation of Overburden Dumps in Jharia Coal-Field	Awarded	Guide
11.	Tripti (2010 DR0029)	September, 2010	Study on Pesticide Tolerant Bacteria and Their Phosphate Solubilization Activity: An Approach towards Bio-fertilizer Preparation.	Awarded	Guide

#### M.Tech Dissertation Guided/Guiding

Sl. No.	Students Name	Year	Topic	Role	Status
1.	Aakankshya Das	2015-2016	Endosulfan degradation by using Plant Growth Promoting Rhizobacteria (PGPR)	Guide	Completed
2.	Pankaj Kumar	2015-2016	Bacterial degradation of Anthracene	Guide	Completed
3.	Amrita Pandit	2014-2015	Biodegradation of Polycyclic Aromatic Hydrocarbons	Guide	Completed
4.	Kumar Partha S. Das	2014-2015	Electricity generation from wastewater using a microbial fuel cell on lab scale	Guide	Completed
5.	Madhukar Kumar	2013-2014	Estimation of calorific value of biomass Briquettes prepared from sawdust and paper waste	Guide	Completed
6.	Amartanshu Srivastava	2013-2014	Planning of Mine closure with demarcation of ESZ in Goa region	Guide	Completed
7.	Vikash Pandey	2012-2013	Characterization and Impact of coal	Guide	Completed

			mine leachate on water regime and its management		
8.	Ritika Mukharji	2012-2013	Remediation of Halogenated Pesticides by Nano Zero-Valent Iron (nZVI) Particles Extracted from Steel Industry Waste	Co-Guide	Completed
9.	Arabinda Bahera	2011-2012	Impact studies of Coal Mine Leachate on Different Water Bodies	Guide	Completed
10.	Gourav Jatav	2011-2012	Effects of Mine waste Contamination at Multiple Levels of Soil	Guide	Completed
11.	Seema Kumari	2010-2011	Comparative Study of Soil Quality And Carbon Flux of Different Land Use Type at Dugdha Coal washery area of Jharia Coalfield	Guide	Completed

**Personal Information:**

Date of birth : January 7<sup>th</sup>, 1980  
Sex : Male  
Marital Status : Married  
Nationality : Indian  
Language known : Hindi and English

**Dr. Vipin Kumar**