

# CV

**Name & Designation:** Dr. Anshumali, Associate Professor

**Date of Birth:** 27.09.1975

**Corresponding Address:** Department of Environmental Science and Engineering  
Indian Institute of Technology (Indian School of Mines), Dhanbad-826004

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## **Educational Qualification:**

Examination	Board/University	Subjects	Division	Dates received
Matriculation	BSEC, Patna	Arts, Sciences	I <sup>st</sup>	29-08-1990
Intermediate	BIEC, Patna	PHY, CHR, BIO, MATH, Hindi, ENG	I <sup>st</sup>	29-09-1992
B.SC.	B.H.U., Varanasi	BOTANY	I <sup>st</sup>	24-07-1996
*M.Sc.	B.H.U., Varanasi	BOTANY	I <sup>st</sup>	14-05-1998
**M.Phil.	J.N.U., New Delhi	ENVIRONMENTAL SCIENCES	I <sup>st</sup>	29-10-2003
***Ph.D.	J.N.U., New Delhi	ENVIRONMENTAL SCIENCES	Awarded	18-07-2006

\*"Carbon budget of savanna and grassland ecosystem of the world" under supervision of Prof. J. S. Singh, Deptt. of Botany, Faculty of Science, B.H.U., Varanasi, 1997-1998.

\*\*"Geochemical fractionation of metals in the surficial sediments of Achankovil River Basin, Kerala under supervision of Prof. AL. Ramanathan, SES, J.N.U., New Delhi, 2003.

\*\*\*"The study of heavy metal and PAHs in the Pandoh Lake, Mandi Town, Himachal Pradesh, India" under supervision of Prof. AL. Ramanathan, SES, J.N.U., New Delhi, 2006.

**Area of Specializations:** Geochemistry and Biogeochemistry of Terrestrial/Aquatic Ecosystems, Environmental Microbiology, Ecology and Biodiversity, Natural Resource Management using Remote Sensing & GIS.

## **Professional position held:**

Designation	Period	Basic Pay + AGP	Organization
CSIR-UGC JRF (Life Sciences)	2002-2003	12,000/-	JNU
CSIR-UGC SRF (Life Sciences)	2004-2006	14,000/-	JNU
Assistant Professor	Feb 2007-Feb 2008	Pay band-3 +6000	I.S.M.
Assistant Professor	Feb 2008-Feb 2010	Pay band-3 +7000	I.S.M.
Assistant Professor	Feb 2010- Sep 2013	Pay band-3 +8000	I.S.M.
Assistant Professor	Sep 2013-May 2016	Pay band-4 +9000	IIT(ISM)
Associate Professor	May 2016-continuing	Level 13A= 1,52,500/-	IIT(ISM)

## **Courses taught and other services provided to students and the home institution:**

### **Courses taught at Bachelor of Technology level (B.Tech):**

- Environmental Chemistry (ESC 13101)- 3-1-0 Credits: 9
- Environmental Biology and Ecology (ESC 13102)- 3-1-0 Credits: 9
- Environmental Geotechnology (ESC 15101)- 3-0-0 Credits: 9
- Environmental Policy and Legislation (ESC 17102)- 3-0-0 Credits: 9
- Environmental Impact Assessment (ESC 17103)- 3-0-0 Credits: 9
- Hazardous and Biomedical Waste Management (ESE 17101)- 3-0-0 Credits: 9
- Environmental Management System (ESM 18101)- 3-0-0 Credits: 9
- Pollution Control and Environmental Management (ESC 16106)- 3-0-0 Credits: 9
- Environmental Microbiology (ESC 14101)- 3-1-0 Credits: 9

### **Courses taught at Master of Technology level (M.Tech):**

- Environmental Policies, Laws, and Impact Assessment (ESC 52101)- 3-1-0 Credits: 9
- Pollution Control and Waste Management (ESC 52106)- 3-0-0 Credits: 9
- Field Visits, Excursions and Seminars (ESC 52601)- 0-0-0 Credits: 6
- Dissertation (Interim) (ESC 53804)- 0-0-0 Credits: 15
- Seminar and Viva-voc on Dissertation (ESC 53405)- 0-0-0 Credits: 10
- Evaluation of Teaching Assignment/ Laboratory Development Work etc. (ESC 53006)- 0-0-0 Credits: 5

**M.Tech Supervision**

S.No.	Candidate	Title of the Dissertation	Guide/Co-guide	Status
1.	Anirban Ray	Evaluation of water quality suitability for drinking using WQI in Kolkata and assessment of the health risk associated with it	Guide	Completed 2019
2.	Nitish Kumar	Soil loss estimation in Damodar River basin using GIS as a tool	Guide	Completed 2019
3.	R. K. Singh	Assessment of groundwater quality due to Arsenic and potential health risk assessment in Bhagalpur District, Bihar	Guide	Completed 2019
4.	A. Anand	Evaluation of WQI and their HRA in Public School of Dhanbad Region	Guide	Completed 2018
5.	Abhishek Anand	Evaluation of GWI and HRA in Dumka Township Area, Jharkhand	Guide	Completed 2018
6.	Zeeshan Ali	Carbon Sequestration Study at Ecorestored Site of BCCL, Dhanbad	Guide	Completed 2018
7.	Manish Kumar	Health risk assessment of heavy metals in groundwater in Dantewada , Chhattisgarh	Guide	Completed 2017
8.	Nikki Chanda	Study on geochemistry of groundwater of Dantewada District, Chhattisgarh	Guide	Completed 2017
9.	Abhay Kumar	Study on groundwater quality index of Dantewada District, Chhattisgarh	Guide	Completed 2017
10.	D K Sahoo	Assessment of fluoride pollution in Koraput District, Odisha	Guide	Completed 2016
11.	Ahmad Nawaz	Black carbon emissions from the cracks of mine fire areas of Jharia Coal Field, Dhanbad, India	Guide	Completed 2016
12.	Rahul Agrawal	Use of three step sequential extraction procedure(BCR) for micronutrient fractionation in agricultural soil around Jharia Coal Field, Jharkhand	Guide	Completed 2015
13.	Gaurav Tanwar	Fractionation of micronutrients in the agriculture soil of Jharia, using Tessier Method	Guide	Completed 2015
14.	Jhuma Sarkar	Use of three step sequential extraction procedure(BCR) for micronutrient fractionation in forest soil around Jharia Coal Field, Jharkhand	Guide	Completed 2015
15.	Kriti Shukla	Study on Physico-chemical Characterization and phosphorus fractionation in agricultural soil of Sidhi district	Guide	Completed 2014
16.	Bijendra Kumar	Study on Physico-chemical Characterization and estimation of fluoride in agricultural soil of Sidhi district, M.P.	Guide	Completed 2014
17.	Ashsih Kumar	The study on geochemistry of Govind Ballabh Pant Sagar, Singrauli, India	Guide	Completed 2013
18.	M.K. Ghritlahre	Industrial and domestic effluent treatment and its reutilization	Guide	Completed 2013
19.	SK Yadav	Study of plantation on Mine spoil In Northern Coalfield	Guide	Completed 2012
20.	Manisha Rani	Impact of sedimentation on Eutrophication of Govind Ballabh Pant Sagar, Uttar Pradesh	Guide	Completed 2012
21.	Singdha Pradhan	Effect of radiation on microbial activity and soil fertility in the Jharia Coal Field, Jharkhand	Guide	Completed 2011
22.	Rajesh Chandra	Radiation survey of open cast coal mines: An implication in mine fire mitigation in Jharia Coal field, Jharkhand	Guide	Completed 2011
23.	Ashvani Kumar	Assessment of soil quality and soil respiration of Dugdha Coal Washery of Jharia Coalfield	Guide	Completed 2010
24.	Awinash Kumar	Assessment of soil quality and soil respiration of Patherdih Coal Washery of Jharia Coalfield	Guide	Completed 2010

### No. of Ph.Ds Supervised

S.No	Registration No.	Candidate	Title of the Research Thesis	Guide/Co-guide	Status
1	2014DR0286	Bijendra Kumar	Phosphorus fractionation in surface sediment: An Implication in Restoration and Conservation of Govind Ballabah Pant Sagar, Singrauli, M.P.	Guide	Submitted 2019
2	2016DR1014	Ashish Kumar	Atmospheric studies using remote sensing techniques and in-situ measurements over the Himalayan region	Guide	Submitted 2019
3	2015DR1033	BK Panda	Study on morphometry and water chemistry of the Ken River system, central India.	Guide	Submitted 2018
4	2015DR1141	Manu Mehta	A global study on spatiotemporal variability of aerosol inferred from space borne measurement	Guide	Awarded 2019
5	2014DR0007	Kumari Priyanka	Soil Carbon fractions in agricultural and forest soils in Jharia Coalfield region, Jharkhand, India	Guide	Awarded 2018
6	2015DR1034	Arindam Barman	Study on diversity of Pumpkin ( <i>Cucurbita moschata</i> Duch. Ex Poir.) germplasms of Garo Hills, Meghalaya, India	Guide	Awarded 2018
7	2014DR0189	Kriti Shukla	Study on biogeochemistry of some micronutrients in agricultural soils around Sidhi district, M.P., India	Guide	Awarded 2018
8	2013DR0263	Arti Hasnsda	Isolation and characterization of Cu(ii) reducing Pseudomonas sp. And their plant growth promoting activity.	Co-guide	Awarded 2018
9	2010DR0119	Lata Dora	Study of phytoplankton community as a bioindicator of water pollution in Damodar River	Co-guide	Awarded 2016
10	2013DR0060	Asmaa Naz	Study on ground water quality and heavy metal toxicity in the Sidhi District, M.P., India	Guide	Awarded 2016
11	2012DR0155	Chandravir Narayan	Study on plant diversity in tropical deciduous forest of Bokaro District, Jharkhand, India	Guide	Awarded 2016
12	2011DR0053	Shruti Mishra	Study on diversity of leguminous and non-leguminous species in Jharia Coalfield, Jharkhand	Guide	Awarded 2015
13	2010DR0029	Tripti	Study on pesticide tolerant bacteria and their phosphate solubilisation activity: An approach towards biofertilizer preparation	Co-guide	Awarded 2014

### No. of Ph.Ds Supervising

S.No	Registration No.	Candidate	Title of the Research Thesis	Guide/Co-guide	Status
1	2015DR1041	P. B. Prasad	Study on Influence of Fly Ash Properties on the Preparation of High Strength Concrete	Guide	On-going
2	2015DR1065	Ashish Kumar	Study on Biogeochemistry of Agricultural and Forest Soils around Punjipathra Industrial Area, Raigarh (Chhattisgarh), India	Guide	On-going
3	2015DR1077	G. K. Tyagi	Study on Energy conservation in Passive Building and its Impact on Environment using Day lighting Concept and Solar Energy	Guide	On-going
4	2015DR1138	A. K. Mishra	Study on Environmental Impact Assessment of Archeological Structures in the State of Haryana, India	Guide	On-going
5	2016DR0105	Madavi Venkatesh	Geochemical Investigation of Heavy Metals and REEs in Water and Surface Sediments: An Implication in Restoration and Conservation of Ken and Betwa Rivers	Guide	On-going
6	2016DR1017	Sanjay Yadav	Study on Plant Diversity in Dongargarh Reserve Forest Rajnandgaon District, Chhattisgarh, India	Guide	On-going
7	2017DR00016	Ruchika Jain	Possible Implications of Bioavailable Iron In Coal Mine Dust On Coal Workers' Lung Disease	Guide	On-going
8	2017DR0174	A. K. Mishra	Study on Environmental Geochemistry of Jamunia River, Jharkhand: An Implication in Restoration and Conservation of Damodar River	Guide	On-going

### No. of International Students Supervising

Registration No.	Candidate	Title of the Research Thesis	Guide/Co-guide	Status
RTF/2018/000041	Phuong Quynh Ngo	Quantification of agricultural biomass in the river bed of Rihand Ecosystem: Understanding the impact of climate change on farming practices in peninsular India	Prof Anshumali	On-going

## Services provided to the home institution:

### **Departmental Level**

- In-charge of Laboratory of Biogeochemistry
- Chairman/Member of Departmental Scrutiny Committee for Ph.D scholar
- ISO certification programme of Dept of ESE
- Member of Departmental Academic Committee
- Departmental Training Programmes
- QC/NABET Accreditation of Dept of ESE
- World Environment Day etc.

### **Institute Level**

- Anti-ragging Team Member
- Member of Library Committee ISM
- DSC member in Sister Departments
- Cultural Integration Program under "Ek Bharat Shrestha Bharat Program
- Annual Sports etc.

## Publications

### Referred Journals

1. Madavi Venkatesh, Anshumali (2019). A GIS-based assessment of recent changes in drainage and morphometry of Betwa River basin and sub-basins, Central India. Under review in Applied Water Science (Springer: AWSC-D-18-00489R2).
2. Madavi Venkatesh, Anshumali (2019). Appraisal of the carbon to nitrogen (C/N) ratio in the bed sediment of the Betwa River, Peninsular India. Accepted in International Journal of Sediment Research doi.org/10.1016/j.ijsrc.2019.07.003 (Q1 Elsevier, Impact Factor 1.970).
3. Ashish Kumar, Narendra Singh & Anshumali (2019). Observations on the distribution of clouds over northern India using joint CloudSat and CALIPSO measurements. Remote Sensing Letters, 10(6): 590–597 (Q1, Taylor and Francis, Impact Factor 2.024).
4. Bijendra Kumar, Anshumali (2018). Phosphorus fractionation in surface water and sediments of industrially polluted freshwater reservoir, India. Chemistry and Ecology, 35(3): 219-234 (Q2, Taylor and Francis, Impact Factor 1.214).
5. Balakrushna Panda, Madavi Venkatesh, Bijendra Kumar, Anshumali (2018). A GIS-based approach in drainage and morphometric analysis of Ken River basin and sub-basins, Central India. Journal of Geological Society of India, 93(1): 75-84 (Q3, Springer, Impact Factor: 0.994).
6. Kumari Priyanka, Anshumali (2018). Quantifying total and labile pools of organic carbon in cultivated and uncultivated soils in eastern India. Soil Research 56(4):413-420 (Q1, CSIRO, Impact Factor: 1.569).
7. Kriti Shukla, Anshumali (2018). Soil micronutrient pools and their transfer to paddy-crops in semi-arid agroecosystems, Central India. Soil and Tillage Research, 180: 164-174 (Q1, Elsevier, Impact Factor: 4.675).
8. Manu Mehta, Narendra Singh; Anshumali (2018). Global trends of columnar and vertically distributed properties of aerosols - inferences from 10-Year long Caliop observations (September 2006-August 2016). Remote Sensing of Environment, 208:120-132 (Q1, Elsevier, Impact Factor: 8.218).
9. Anshumali, Manish Kumar, Nikki Chanda, Abhay Kumar, Bijendra Kumar, Madavi Venkatesh (2018). Geochemical Assessment of Fluoride Pollution in Groundwater of Tribal Region in India. Bulletin of Environmental Contamination and Toxicology, 100(3): 421–429 (Q2, Springer, Impact Factor 1.650).
10. Ashish Kumar, Narendra Singh, Anshumali, Raman Solanki (2018). Evaluation and utilization of MODIS and CALIPSO aerosol retrievals over a complex terrain in Himalaya. Remote Sensing of Environment 206: 139–155 (Q1, Elsevier, Impact Factor 8.218).
11. Bhupendra Singh, Ruy-An Doong, Dheeraj Singh Chauhan, Ashutosh K. Dubey, Anshumali (2017). Synthesis and characterization of Fe<sub>3</sub>O<sub>4</sub>/Polythiophene hybrid nanocomposites for electroanalytical application. Materials Chemistry and Physics 205; 462-469 (Q2, Elsevier, Impact Factor 2.781).
12. Arindam Barman, Anshumali Singh, Prakash Chandra Gupta (2017). Antilithiatic and diuretic activity of Cucurbita moschata on ethylene glycol induced lithiasis in male albino Wistar rats. Indian Journal of Animal Sciences 88 (4): 407–411 (Q3, ICAR, Impact factor: 0.22).

13. Arindam Barman, Anshumali (2017). Genetic diversity estimates in landraces of Pumpkin (*Cucurbita moschata* Duch.) from North Eastern Himalayan region of India using agro-morphological and molecular traits. *Indian Journal of Agricultural Sciences* 88 (1): 79–85 (Q3, ICAR, Impact factor: 0.28).
14. Kriti Shukla, Bijendra Kumar, Rahul Agrawal, Kumari Priyanka, Madavi Venkatesh, Anshumali 2017. Assessment of Cr, Ni and Pb pollution in rural agricultural soils of Tonalite-Trondjemite Series in Central India. *Bulletin of Environmental Contamination and Toxicology*, 98(6): 856–866 (Q2, Springer, Impact Factor 1.650).
15. Bijendra Kumar, Madavi Venkatesh, Anshuman Tripathi, Anshumali 2017. A GIS-based approach in drainage morphometric analysis of Rihand River Basin, Central India. *Sustain. Water Resour. Manag.* 4(1); 45–54. (Springer).
16. Arti Hansda, Vipin Kumar, Anshumali (2017). Cu resistant *Kocuria* sp. CRB15: a potential PGPR isolated from the dry tailing of Rakha copper mine. *3 Biotech*, 7:132 (Q2, Springer, Impact Factor 1.786).
17. Arti Hansda, Vipin Kumar, Anshumali (2017). Influence of Cu fractions on soil microbial activities and risk assessment along Cu contamination gradient. *Catena* 151: 26–33 (Q1, Elsevier, Impact Factor 3.851).
18. Tripti, Adarsh Kumar, Zeba Usmani, Vipin Kumara, Anshumali 2016. Biochar and flyash inoculated with plant growth promoting rhizobacteria act as potential biofertilizer for luxuriant growth and yield of tomato plant. *Journal of Environmental Management*, 190: 20-27 (Q1, Elsevier, Impact Factor 4.865).
19. Arti Hansda, Vipin Kumar, Anshumali (2016). A comparative review towards potential of microbial cells for heavy metal removal with emphasis on Biosorption and bioaccumulation. *World J Microbiol Biotechnol*, 32:170-183 (Q2, Springer, Impact Factor 2.652).
20. Manu Mehta, Ritu Singh, Ankit Singh, Narendra Singh, Anshumali (2016). Recent global aerosol optical depth variations and trends — A comparative study using MODIS and MISR level 3 datasets. *Remote Sensing of Environment* 181: 137–150 (Q1, Elsevier, Impact Factor 8.218).
21. Chandravir Narayan and Anshumali (2016). Elemental composition of Sal forest soils around Chhotanagpur Plateau, India. *Chemistry and Ecology* 32(6): 533-549 (Q2, Taylor and Francis, Impact Factor 1.214).
22. Rahul Agrawal, Priyanka Kumari Bijendra Kumar Chandravir Narayan, Kriti Shukla Jhuma Sarkar and Anshumali (2016). Micronutrient fractionation in coal mine-affected agricultural soils, India. *Bulletin of Environmental Contamination and Toxicology*, 96(4):449-57 (Q2, Springer, Impact Factor 1.650).
23. Arindam Barman, Rituparna Mitra<sup>1</sup>, D.K. Singh and Anshumali (2015). Diversity among indigenous germplasms of melon (*Cucumis melo* L.) through seed protein profiling pattern. *VEGETOS* 28 (3): 01-07.
24. Tripti, Adarsh Kumar, Vipin Kumar, Anshumali (2015). Effect of commercial pesticides on plant growth promoting activities of *Burkholderia* sp. Strain L2 isolated from rhizosphere of *Lycopersicon esculentum* cultivated in agricultural soil. *Toxicological & Environmental Chemistry* 97(9), 1180-1189 (Q3, Taylor and Francis, Impact Factor: 1.021).
25. Aasma Naaz Bijendra Kumar, Kriti Shukla, Chandravir Narayan and Anshumali (2015) Assessment of fluoride pollution in groundwaters of arid and semi-arid regions of Tonalite-Trondjemite series in Central India. *Exposure and Health* 7(4): 545–556 (Q1, Springer, Impact Factor: 4.532).
26. Aasma Naaz and Anshumali (2015) Hydrogeochemistry of fluoride-rich groundwaters in semiarid region of Central India. *Arabian Journal of Geosciences* 8(12):10585–10596 (Q2, Springer, Impact Factor: 1.141).
27. Bijendra Kumar, Aasma Naaz, Kriti Shukla, Chandravir Narayan, Govind Singh, Alok Kumar, AL Ramanathan, Anshumali (2016) Spatial variability of fluorine in agricultural soils around Sidhi District, Central India. *Journal of Geological Society of India*, 87: 227-235. (Q3, Springer, Impact Factor: 0.994).
28. Anshumali, Rani M., Yadav S., Kumar A., (2014). Geochemical alterations in surface waters of Govind Ballabh Pant Sagar, Northern Coalfield, India. *Environmental Earth Science* 71:3181–3193. (Q2, Impact factor: 1.871).
29. A.T. Surendra, Anshumali, Gurdeep Singh, (2009). Prediction of plant species diversity by log-linear and power function models along the east coast region of India. *Tropical Ecology*, 50(1). (Q3, ISTE, Impact factor: 0.708).
30. Anshumali, A. L. Ramanathan, Gurdeep Singh, Gurmeet Singh, Rajesh Ranjan, Parijat Tripathi (2009). Chemodynamics of trace metal fractions in surface sediments of the Pandoh Lake, Lesser Himalaya, India. *Environmental Geology*, 57: 1865-1879. (Q2, Springer, Impact factor: 1.871).

31. Anshumali, Ramanathan AL, (2007). Phosphorus fractionation in surficial sediments of Pandoh Lake, Mandi district, Himachal Pradesh, India. *Applied Geochemistry*, 22: 1860-1871. (Q1, Elsevier, Impact factor: 2.894).
32. Anshumali, Ramanathan AL, (2007). Seasonal variation in the major ion chemistry of Pandoh Lake, Mandi District, Himachal Pradesh, India. *Applied Geochemistry*, 22:1736-1747. (Q1, Elsevier, Impact factor: 2.894).
33. Prasad MBK, Ramanathan AL, Shrivastava SK, Anshumali, Saxena R, (2006). Metal fractionation studies in surficial and core sediments in the Achankovil River basin in India. *Environmental Monitoring and Assessment*, 121: 77-102. (Q2, Springer, Impact factor: 1.959).

### **Indexed Journals**

1. Mishra AK, Anshumali (2019). Appraisal of rainwater characteristics in and around historical monuments of 16-18<sup>th</sup> century, Haryana, India. *International Journal of Global Science Research* Vol. 6(1): 879-889.
2. Shukla Kriti Anshumali 2017. Micronutrient Distribution in Arid and Semi-arid agricultural Soils of Central India. *Journal of Agroecology and Natural Resource Management* 4(4): 258-263.
3. Kumari Priyanka, Anshumali 2016. Soil Carbon: An Overview on Soil Carbon Function and its Fractionation. *Current World Environment* 11(1): 178-185 (Q4, Thomson Reuter).
4. Kumari Priyanka, Anshumali, Bijendra Kumar, Kriti Shukla 2016. Spatial Variation in Soil Organic Carbon and Moisture Content in Forest Soil around Jharia Coalfield, Dhanbad. *J. Bio. Env. Sci.* Vol. 9, No. 1, p. 76-81 (Thomson Reuter).
5. Hansda A., Kumar V. Anshumali (2015). Biosorption of Copper by Bacterial Adsorbents: A Review. *Research Journal of Environmental Toxicology*, 9:45-58 (Q3, Academic Journals Inc.).
6. Hansda A., Kumar V. Anshumali and Usmani Z. (2015). Phytoremediation of heavy metals contaminated soil using plant growth promoting rhizobacteria (PGPR): A current perspective. *Recent Research in Science and Technology* 6(1): 131-134.
7. Chandravir Narayan and Anshumali (2016). Dispersion pattern of native species in Sal forests of Chhotanagpur Plateau, India. *Current World Environment* 10(2), 482-488 (Q4, Thomson Reuter).
8. Chandravir Narayan and Anshumali (2016). Diversity indices and importance values of a tropical deciduous forest of Chhotanagpur plateau, India. *Journal of Biodiversity and Environmental Sciences*, 7(1): 358-367 (Thomson Reuter).
9. Shruti Mishra, Anshumali (2015). Species-area relationships in the tropical deciduous forests of Jharia Coalfield, India. *Indian Forester*, 141 (9) : 974-980, 2015.
10. Bijendra Kumar, Anshumali, Aasma Naaz, Kriti Shukla, Chandravir Narayan (2014). Physico-chemical characterization of irrigated and rainfed agricultural soil Sidhi district, M.P. *Current World Environment*. Vol. 9(3), 983-989 (Q4, Thomson Reuter).
11. Shruti Mishra, Sanjay Yadav, Manisha Rani, Anshumali (2013). Floristic Composition, Diversity and Regeneration of Plant Species in Tropical Deciduous Forests, India. *Ecology, Environment and Conservation* 21(3): 1379-1387 (Q4, ISSN: 0971-765X, Scopus, H index: 9, SJR:0.141).
12. Mishra S., Anshumali, (2014). Phytosociological analysis of native species in the Tropical Deciduous Forests around Jharia Coalfield, Eastern India. *International Journal of Applied Environmental Sciences* 9(4): 2243-2253. (ISSN: 0973-6077, Scopus, H index:3, SJR:0.114).
13. Mishra S., Anshumali, (2014). Identification of plant community structure in Tropical Deciduous forests around, Eastern India. *The Indian Mining & Engineering Journal*, 53(08), 14-18. (ISSN:0019-5944).
14. Mishra S., Anshumali, (2014). Forest structure and diversity in the tropical deciduous forests of Jharia Coalfield, Jharkhand. *The Indian Mining & Engineering Journal*, 53(03), 14-18. (ISSN:0019-5944).
15. Sengupta C., Anshumali, (2013). The height:diameter ratio dependent eecis of native plant seedlings: Implication in restoration of OB dumps. *The Ecoscan*, 3: 281-287. (ISSN:0974-0376).
16. Tripti, Vipin Kumar, Anshumali, (2012). Phosphate solubilising activity of some bacterial strains isolated from chemical pesticide exposed agricultural soils. *International Journal of Engineering Research and Development*, 3(9): 1-16. (ISSN:2278-800X).
17. Tripathi P., Anshumali, (2011). Arsenic enrichment in groundwater of the Middle Gangetic plain, India. *Minervis*, 69-70: 7-18.

18. Dora, S. L. Maiti S.K., Tiwary, R.K., Anshumali, (2010). Algae as an indicator of river water pollution: A review. *The Bioscan*, 2: 413-422.(ISSN:0973-7049).

### **Indian Society Journal**

1. Shukla Kriti, Kumar Bijendra, Naaz Asmaa, Narayan Chandravir, Singh Govind, Kumar Alok, AL. Ramanathan, Anshumali (2016). Phosphorus Fractions in Irrigated and Rainfed Agricultural Soils of Central India. *Journal of the Indian Society of Soil Science* 64(2), 148-156 (Q3, ISSN, IF: 0.23).

2. Mishra S., Anshumali, (2014). Dispersion pattern of legumes and non-legumes in the Tropical Deciduous Forests around Jharia Coalfield, Eastern India. *Indian Journal of Tropical Biodiversity* 22(1): 45-50. (ISSN 0971-4642).

3. Anshumali, Rani M., Yadav S., Kumar A., (2012). Impact of Mining activities and Allied Industries on Geochemistry of Govind Ballabh Pant Sagar, Northern Coalfield, India. *Journal Indian Geological Congress* 4(1): 1-7. (ISSN:2229-435X)

### **International Conference**

1. Ashish Kumar, Madavi Venkatesh, Anshumali 2018. The study on geochemistry of surface water in Singrauli region, India. Indo-US bilateral workshop on Water-Food-Energy-Climate nexus: A perspective towards a sustainable future 2018, WFEC-2018, IESD, BHU, Varanasi.

2. Ashish Kumar, Narendra Singh, Anshumali 2019. Study on cloud types distribution over northern India using raDAR-liDAR (DARDAR). URSI AP-RASC 2019, New Delhi, India, 09 - 15 March 2019.

3. Narendra Singh, Ashish Kumar, Anshumali, Chandra Prakash, Chhavi P. Pandey 2019. Study on the satellite and ground based aerosol measurements over Himalayan region. URSI AP-RASC 2019, New Delhi, India, 09 - 15 March 2019.

4. Shukla K., Anshumali, 2014. Review on biogeochemistry of some micronutrients in agricultural soils, India. In: *Tropical Ecosystems in Changing World*, Tropical Ecology Congress, 10-12<sup>th</sup> December 2014, Jawaharlal Nehru University New Delhi-110067.

5. Narayan C., Kumar A., Ghritlahre M.K., Anshumali, 2014. Structure and floristic composition of tropical deciduous forests around Bokaro district, Jharkhand, India. In: *Tropical Ecosystems in Changing World*, Tropical Ecology Congress, 10-12<sup>th</sup> December 2014, Jawaharlal Nehru University New Delhi-110067.

6. Tripti, Vipin Kumar, Anshumali, (2012). Bio-formulation and Shelf-life Studies of Phosphate Solubilizing Inoculants in Different Carriers In: *International conference on Anthropogenic Impact on Environment and Conservation Strategy*, November 2 – 4, 2012, Organised by Department of Biosciences, St. Xavier's College, Ranchi In collaboration with National Environmentalists Association, India, Ranchi, Jharkhand.

7. Shruti Mishra, Chandravir Narayan, Anshumali, Vipin Kumar, (2012).The study on phytosociology of plant species in tropical dry deciduous forests of Jharia Coalfield, Jharkhand, India. In: *International conference on Anthropogenic Impact on Environment and Conservation Strategy* November 2 – 4, 2012, Organised by Department of Biosciences, St. Xavier's College, Ranchi In collaboration with National Environmentalists Association, India, Ranchi, Jharkhand.

8. Anshumali, P. Tripathi, (2012). Arsenic enrichment in groundwater of the Middle Gangetic Plain, India. In: *The Fifth International Scientific Conference BALWOIS 2012*, Ohrid, Republic of Macedonia, 28th May to 2nd June 2012.

9. S.K. Yadav, M. Rani, Anshumali, (2011). Geochemistry of Arsenic in Indo-Gangetic Plain: A Review. In: *14th International Conference of International Academy of Physical Sciences (CONIAPS-XIV)*, Sardar Vallabhbhai National Institute of Technology, Surat, December 22-24, 2011.

10. Anshumali, (2011). Ecological amplitude of five tropical deciduous species in restoration of mined out areas in Jharia Coalfield, India. In: *Golden Jubilee International Conference on Technological Challenges and Management Issues for Sustainability of Mining Industries (TMSMI 2011)*, 4<sup>th</sup> to 6<sup>th</sup> August, 2011 at N. I. T. Rourkela.

11. Anshumali et al., (2011). Microbial enzyme assay as a surrogate measure of soil microbial activity in Jharia Coal Field, India". In: *26<sup>th</sup> International Conference on Solid Waste Technology and Management* during March 27 – 30, 2011 at Philadelphia, PA U.S.A.

12. Anshumali, AL. Ramanathan, G. Singh, R. Ramesh, V. Kannan; R. Elumalai, (2009). Estimation of sedimentation rate by radiometric techniques in the oligotrophic lake, Lesser Himalaya, India. In: *International Symposium on Mineralogy, Environment and Health, UMLV, Paris*, 17-18 September, 2009.

13. Anshumali, AL. Ramanathan, Gurdeep Singh, (2009). Geochemical fractionation of trace metals in the surface sediments of Achankovil River, Kerala, India. In: International Symposium on Environmental Pollution, Ecology and Human Health, July 25-27, 2009, S. V. University, Tirupati, India.
14. Kumari N, Anshumali, Singh G, (2007). Impact of coal mining on ponds of Jharia Town, Dhanbad, Jharkhand. In: Singh G, Laurence D, Dutt KL, (Editors), Proceeding of First International Conference on MSECMI, New Delhi, India, 121-127.

### **National Conference**

1. Yadav, S., Anshumali (2018). Population structure of tree species in Dongargarh Reserve Forest, Rajnandgaon District, Chhattisgarh. National conference on "Biogeochemical cycles and climate change" 10-11 August 2018, IIT(ISM) Dhanbad" pp: 386-389. (ISBN 978-93-5321-509-5).
2. Priyanka, K., Anshumali (2018). Identifying Soil Carbon Fractions in Uncultivated Soils in Damodar River Basin. National conference on "Biogeochemical cycles and climate change" 10-11 August 2018, IIT(ISM) Dhanbad" pp: 332-339. (ISBN 978-93-5321-509-5).
3. Panda, B., Venkatesh, M., Anshumali (2018). Simulation of contribution of water yield from Bearma sub-basin to Ken River Basin, Central India, using SWAT hydrological model. National conference on "Biogeochemical cycles and climate change" 10-11 August 2018, IIT(ISM) Dhanbad" pp: 230-238. (ISBN 978-93-5321-509-5).
4. Venkatesh, M., Panda, B., Kumar, B., Narayan, C., Anshumali (2018). Morphometric comparison of Ken-Betwa River Basins, Bundelkhand region, Central India. National conference on "Biogeochemical cycles and climate change" 10-11 August 2018, IIT(ISM) Dhanbad" pp: 62-68. (ISBN 978-93-5321-509-5).
5. Kumar, B., Anshumali (2018). Assessment of major and trace metals in the surface sediments of Govind Ballabh Pant Sagar Reservoir, India. National conference on "Biogeochemical cycles and climate change" 10-11 August 2018, IIT(ISM) Dhanbad" pp: 38-42. (ISBN 978-93-5321-509-5).
6. Barman, A., Anshumali (2018). Divergence analysis among the landraces of pumpkin (*Cucurbita moschata* Duch.) from Meghalaya, India. National conference on "Biogeochemical cycles and climate change" 10-11 August 2018, IIT(ISM) Dhanbad" pp: 1-8. (ISBN 978-93-5321-509-5).
7. Sanjay Kumar Yadav, Manisha Rani, Anshumali, (2012). Impact of mining on plant diversity of Northern Coalfield, Singrauli (M.P.), India. In: National Seminar on Biodiversity: Its Conservation & Sustainable Development for Human Welfare, 7-9 April, 2012 Department of Zoology, Vinoba Bhave University, Hazaribag, Jharkhand.
8. Manisha Rani, Sanjay Kumar Yadav, Anshumali, (2012). Stalinization as Ground Water Pollution in India: A Review. In: National Conference on Sustainable Development of Groundwater Resources in Industrial Regions (SDGRIR 2012), March 22 -23, 2012 Department of Environmental Science & Engineering, ISM, Dhanbad, Jharkhand.
9. Tripti, Vipin Kumar & Anshumali, (2012). Contamination of Groundwater By Pesticide And Its Bioremediation- A Short Review. In: National Conference on Sustainable Development of Groundwater Resources in Industrial Regions (SDGRIR 2012), March 22 -23, 2012 Department of Environmental Science & Engineering, ISM, Dhanbad, Jharkhand.
10. Sanjay Kumar Yadav, Manisha Rani, Anshumali, (2012). Impact of Industries on Groundwater Hardness: A Review. In: National Conference on Sustainable Development of Groundwater Resources in Industrial Regions (SDGRIR 2012), March 22 -23, 2012 Department of Environmental Science & Engineering, ISM, Dhanbad, Jharkhand.
11. Tripti, Vipin Kumar, Anshumali, (2012). Evaluation of pesticide tolerance capability of phosphate solubilising bacterial (PSB) strain. In: 2<sup>nd</sup> National Conference on Antimicrobial Resistance: A Cause for Global Concern, 6-8 February, 2012, Sam Higginbottom Institute of agriculture Technology & Sciences, Allahabad, Uttar Pradesh.
12. Anshumali, A. Kumar, M. Rani, S. Yadav, S. P. Singh, (2012). Impact of coal mining and allied industries on geochemistry of Govind Ballabh Pant Sagar, Northern Coalfield, India. In: National Conference on Green Earth, October 18-19, 2012, organized by Indian geological Congress and Wadia Institute of Himalayan Geology, Dehradun.
13. Anshumali, (2011). Ecological Blueprint of Plantation in Mining Sectors: an Implication in Biodiversity Conservation and Climate Change. In: National Conference on Landscape Restoration Processes Challenges and Opportunities, 22-23 February, 2011, FRI, Dehradun.



14. Anshumali, Ramanathan, AL., (2008). Physical fractionation of trace metals in surface sediments of the Pandoh Lake, Lesser Himalaya, India. In: Choubey V.K., Singh R.D., Singh O., Sharma M.K., (Editors), Proceeding of National Seminar on “Conservation and Restoration of Lakes (CAROL, 2008), Nagpur, India, 257-266.

### **Books Published /Chapters Contributed**

1. Bijendra Kumar, Anshumali (2019). Phosphorus Sorption Characteristics of the Surface Sediments from Industrially Polluted GBPS Reservoir, India. Under review in Contemporary Environmental Issues and Challenges in Era of Climate Change (Editors: P. Singh, R.P. Singh, V. Srivastava), Springer Nature Singapore Pvt Ltd.
2. Arindam Barman, Anshumali, CS Sangma, RM barman (2018). “Recent Trends in Agricultural Biotechnology”; New Delhi Publishers, New Delhi-110059.
3. Anshumali, M. Venkatesh (2018). Biogeochemical Cycles and Climate Change. Proceedings of National Conference on “Biogeochemical Cycles and Climate Change” 10-11 August 2018, IIT(ISM) Dhanbad” (ISBN 978-93-5321-509-5).
4. Bijendra Kumar, Anshumali (2014). Fluoride in Agricultural soil: A Review on its sources and toxicity to plants. P. 29-37 in Global Sustainability Transitions: Impacts and Innovations (ed. G.C. Mishra ) at 3<sup>rd</sup> International conference on “Sustainable Innovative Techniques in Architecture, Civil and Environmental Engineering” organized by Krishi Sanskriti at JNU, New Delhi, 26<sup>th</sup> and 27<sup>th</sup> April, 2014. (ISBN – 978-93-83083-77-0).
5. Bijendra Kumar, Anshumali, Aasma Naaz, Kriti Shukla, Subhash Chandra, Binay Prakash Panigraphy, Ashwani Kumar Tiwari (2014). Fluoride in Groundwater and its Health Hazards: A Review in Indian Scenario. P. 38-45 in Global Sustainability Transitions: Impacts and Innovations (ed. G.C. Mishra ) at 3<sup>rd</sup> International conference on “Sustainable Innovative Techniques in Architecture, Civil and Environmental Engineering” organized by Krishi Sanskriti at JNU, New Delhi, 26<sup>th</sup> and 27<sup>th</sup> April, 2014. (ISBN – 978-93-83083-77-0).
6. Prasoon Kumar Singh, Anshumali, Brijesh K. Mishra, Alok Sinha, A. K. Pal, Dipanwita Bhakat. Proceedings of National Conference on “Sustainable Development of Groundwater Resources in Industrial Regions”. ISM, Dhanbad, March 22 -23, 2012.
7. Anshumali, 2012. Chapter 1: Ecological Blueprint of Plantation in Mining Sectors: an Implication in Biodiversity Conservation and Climate Change. In: Landscape Fragmentation and Restoration Researches in India (Editor: Prafulla Soni & Lal Singh), LAP LAMBERT Academic Publishing, AV Akademikerverlag GmbH & Co. KG, Heinrich-Bocking-Str. 6-8, 66121Saarbrücken, Deutschland / Germany, pp 5-19. ISBN: 978-3-659-15849-0.
8. Chitralakha, Anshumali, Singh G., (2009) Biogeochemistry of Arsenic in Environmental Samples. In: Singh L, (Editor), New Dimensions in Environmental Geography, Tara Prakashan, Bodh Gaya.
9. Parijat Tripathi, AL. Ramanathan, Pankaj Kumar, Anshumali, P. Bhattacharya, R. Thunvik & J. Bundschuh, (2009).Chapter 20: Arsenic distribution in the groundwater of the Central Gangetic plains of Uttar Pradesh, India. In: Natural Arsenic in Groundwaters of Latin America. (Editors: J. Bundschuh, M.A. Armienta, P. Birkle, P. Bhattacharya, J. Matschullat, A.B. Mukherjee), CRC Press/Balkema, Taylor & Francis Group, pp 215-224.ISBN: 978-0-415-40771-0.

### **Other professional activities such as workshops, seminar and consultations**

#### **Foreign Nations Visited**

- France 2009
- USA 2011
- Republic of Macedonia 2012
- Spain 2016

#### **Invited Lecture/Talk**

- Study Abroad Programme on Mining, Environment and Sustainable Development for University of South Florida - ST. Petersburg, USA, From 5 - 18 August, 2014.
- Mining Environment and Sustainable Development for Officials of Ministry of Mines, Govt. of Afghanistan. From 16.08.2014 to 01.09, 2014.
- Training Programme on Environmental Impact Assessment of Mining Projects, for Officials of Ministry of Mines, Govt. of Afghanistan. From 6<sup>th</sup> to 22<sup>th</sup> December, 2014.
- DST-MOEA-JNU Training Programme on “Natural Resources and Water Management” for Africans in the Jawaharlal Nehru University, New Delhi, 2-22 December 2014.
- Nine Week programme for Management Trainees (Environmental Engineering) of Coal India at IICM Ranchi from 27<sup>th</sup> April to 27<sup>th</sup> June 2015.

- National Conference on PAST AND PRESENT GEOCHEMICAL PROCESSES – IMPACTS ON CLIMATE CHANGE AND ANNUAL GENERAL BODY MEETING – 2015 INDIAN SOCIETY OF APPLIED GEOCHEMISTS, HYDERABAD School of Environmental Sciences and Jawaharlal Nehru University New Delhi, India 110067 22–23 December 2015.
- Renewable Energy Materials & Technology in Academia & Industries” (REMTAI-2016) in the Department of Applied Physics, Indian School of Mines Dhanbad on March 2-4, 2016.
- Three days Training Programme on EIA/EMP Preparation of Ecology & Biodiversity (EB) & Soil Conservation (SC) at IIIFC, Kolkata organized by Department of Environmental Science & Engineering, Indian School of Mines) Dhanbad during 2-4 December, 2015.
- 5-Day Training Program on “Water Quality and Treatment Plant Operation” in the Department of Environmental Science & Engineering, Indian Institute of Technology (Indian School of Mines) Dhanbad, during December 19- 23, 2016.
- Training Program on ‘Environmental Clearance Procedures and Impact Assessment for Mining Projects” during June 07-11, 2017 at IIT(ISM) Industry Institute Interaction Facility, Kolkata, India.
- Two months Green Skill Development Programme (GSDP) Certificate Course on “Pollution Monitors (Air & Water Pollution)” sponsored by MoEF&CC, dept of ESE, IIT(ISM) Dhanbad.
- Workshop on “Climate Change: Opportunities and Challenges in Jharkhand” – held on 26th September, 2018 at Ranchi, Government of Jharkhand and NABARD.
- DST-SERB School for Brain Storming Session on Short-Term Course entitled "*Smart Energy Materials & Devices*" April 29-May 3, 2019 at Executive Development Centre, IIT-ISM Dhanbad.

### **Workshop Attended**

- Third National Workshop on Biostatistics and Biometry, Deptt. Of Zoology, B.H.U., Varanasi, 1998.
- National Workshop on WATER QUALITY (including drinking water), Feb 2002.
- Short term training programme on Mathematical Modeling of ground water flow and mass transport, theory and hand on training” SES, J.N.U., New Delhi, 2004.
- Training course on Hydrology of Lakes for Sustainable Human Benefits, PU, Chandigarh, 2007.
- Hazardous Wastes (management, Handling and Transboundary Movement) Rules, 2008 & Amendments Till March, 2010. 2-22 October, National Safety Council, Goa, 2010.

### **National Conference Participation**

- Tropical Ecology Congress. Current Trends in Tropical Biodiversity Research and Conservation. Garhwal, Uttarakhand, India. 2-5 December, 2007.
- National Seminar on “Conservation and Restoration of Lakes (CAROL, 2008), Nagpur, India.
- National Seminar on “Recent Advances in Information Technology” (RAIT-2009), 6-7 Feb, 2009 ISMU, Dhanbad.
- National Industrial Exhibition-cum-Seminar (NIES – 2008), 26-28 December, Bokaro.
- National Conference on Scientific Strategies and Preservation of Wetlands in India, JNU, New Delhi 2010.
- National Conference on Landscape Restoration Processes Challenges and Opportunities, 22- 23 February, 2011, IFR, Dehradun.
- National Conference on Green Earth, October 18-19, 2012, Organized by Indian Geological Congress and Wadia Institute of Himalayan Geology, Dehradun.

### **International Conference Participation**

- Second International Conference on Groundwater for Sustainable Development: Problems, Perspectives and Challenges, JNU, New Delhi, 2006.
- 1st International Conference on Managing the Social and Environmental Consequences of Coal Mining in India, New Delhi, 2007.
- International Symposium on Environmental Pollution, Ecology and Human Health, July 25- 27, 2009, S. V. University, Tirupati, India.
- International Symposium on Mineralogy, Environment and Health, UMLV, Paris, 17-18 September, 2009.
- 26th International Conference on Solid Waste Technology and Management during March 27 – 30, 2011 at Philadelphia, PA, U.S.A.
- Golden Jubilee International Conference on Technological Challenges and Management Issues for Sustainability of Mining Industries (TMSMI 2011), 4th to 6th August, 2011 at N. I. T. Rourkela.
- 14th International Conference of International Academy of Physical Sciences (CONIAPSXIV), Sardar Vallabhbhai National Institute of Technology, Surat, December 22-24, 2011.
- The Fifth International Scientific Conference BALWOIS 2012, Ohrid, Republic of Macedonia, 28th May to 2nd June 2012.
- 18th Convention of Indian Geological Congress & International Symposium on “Minerals and Mining in India-The way forward, inclusive of cooperative mineral –based industries in SAARC countries”, 27th -29th April 2013, M. P. Council of Science and Technology, Vigyan Bhawan, Bhopal, Madhya Pradesh.

### **Training Programme/National/International Conference/Seminar organized**

- 1st International Conferences on Managing the Social and Environmental Consequences of Coal Mining in India, November 19-21, 2007, IIC, New Delhi.

- National Conference on Sustainable Development of Groundwater Resources in Industrial Regions, (SDGRIR 2012) 22-23 March 2012, Dept. of ESE, ISM, Dhanbad.
- Three days Training Programme on EIA/EMP Preparation of Ecology & Biodiversity (EB) & Soil Conservation (SC) 2-4 December, 2015, IIFC, Kolkata.
- Field Based Training on Water Pollution (WP), Ecology & Biodiversity (EB) and Soil Conservation (SC) as per QCI-NABET Guidelines” 15-19 June, 2018, Waidhan, Singrauli.
- National Conference on “Biogeochemical Cycles and Climate Change (BCCC 2018)” organized for two days (10-11 August 2018) at IIT(ISM), Dhanbad.

### **Details of R & D Projects:**

<b>Title</b>	<b>Role</b>	<b>Amount (Lakh)</b>	<b>Funding Agency</b>	<b>Status</b>
Baseline study of Bagjata and Bhandurang Uranium Mine Deposit in Jadugoda, Jharkhand, India	Co-PI	34	BRNS, 2007-2010	Completed
Regional Development Programme of Angul-Talcher Areas of Orissa, India.	Co-PI	53.00	OSPCB, 2007-2010	Completed
Regional Environmental Impact Assessment Study of Goa Region	Co-PI	200	MoEF, 2011-14	Completed
Phosphorus fractionation in surface and core sediments: An Implication in Restoration and Conservation of Govind Ballabah Pant Sagar, Singrauli, M.P.	PI	32.48	MoES, 2014-17	Completed
Geochemical Investigation of Heavy Metals and REEs in Water and Surface Sediments: An Implication in Restoration and Conservation of Ken and Betwa Rivers.	PI	24.67	DST, 2015-18	Completed
ASEAN-India Research Training Fellowship (AIRTF)	PI	3.71667	DST(FICCI)2019	On-going

### **Details of Consultancy of Projects:**

<b>Project Title</b>	<b>Name of Client</b>	<b>Role</b>	<b>Cons No.</b>	<b>Remarks</b>
EIA/EMP of Rolep Hydroproject, East Sikkim	Velankani Energy PVT. LTD. 2014-15	CI	Cons No./2731/2014-15	Completed (11.90 lakh)
Preparation of EIA/EMP of Shivani OC, WCL	CMPDIL, Nagpur, 2013	CI	Cons No./2899/2014-15	Completed (1.03 lakh)
Preparation of EIA/EMP of Niljai Expn. (Deep) OC Wani Area, WCL	CMPDIL, Nagpur, 2013	CI	Link-up no 0099, page no 235, 2014	Completed (1.05 lakh)
Preparation of EIA/EMP of Patherdih Coal Washery, BCCL	CMPDIL, Dhanbad 2015	CI	Link-up no 336, page no 315, 2015	Completed (0.92 lakh)
Preparation of EIA/EMP of Ksumunda OCP Exp, SECL	CMPDIL, Bilaspur 2015	CI	Link-up no 765, page no 138, 2016	Completed (1.06 lakh)
Environmental impact study of Chotia Coal Mines	BALCO, 2016-17	Team Member	Cons No./3317/2016-17	Completed (16.10 lakh)
Water and waste water monitoring assessment around iron ore mines	NMDC, Bachel	CI	Cons No./2958/2015-16	Completed (14.25 lakh)
Preparation of EIA/EMP of Balaram OCP Exp, ECL	CMPDIL, Bhubaneswar	CI	Link-up no 528, page no 058, 2015	Completed (1.05 lakh)
Preparation of EIA/EMP of Ajoy an Damodar River bed for sand mining	CMPDIL, Asansol	CI	Link-up no 497, page no 047, 2015	Completed (2.17 lakh)
Preparation of EIA/EMP of three WCL projects	CMPDIL, Nagpur, 2015	CI	Link-up no 579, page no 075	On-going (2.17 lakh)
EB and SC training Program, Kolkata Centre	ESE, 2015	CI	Link-up no 606, page no 084	Completed (2.00 lakh)
Preparation of EIA/EMP of four BCCL projects	CMPDIL, Dhanbad 2016	CI	Link-up no 672, page no 106	Completed (3.26 lakh)
HSE study of Vedanta Iron Mines	Vedanta, 2017-18	Team Member	Cons No./3759/2017-18	Completed (12.50 lakh)
Groundwater Monitoring around Kirandul BIOM Dantewada	NMDC, Kirandul	CI	Cons No./3274/2016-17	Completed (25.40 lakh)
Soil Pollution Assessment around Kirandul BIOM Dantewada	NMDC, Kirandul	CI	Link-up no 964, page no 204	Completed (6.61 lakh)
Hydrogeology and Water Sustainability Study around DB Power Plant	DB Power Plant Raigarh	CI	Cons No/3748/2017-18	Completed (12.25 lakh)
Water Sustainability Study around RKM Power Plant	RKM Power Plant, Raigarh	CI	Cons No/3766/2017-18	Completed (7.75 lakh)

EPRI for coal mining projects	ICFRE, Dehradun	Team Member	Cons No/3812/2018-19	On-going (11.80 lakh)
Road Transport Impact Study including Possible Impact on KOSA cultivation	RKM Power Plant, Raigarh	CI	Cons No/3821/2018-19	Completed (3.75 lakh)
Biodiversity assessment along Chennai-Salem Green Corridor	NHAI, Chennai	CI	Cons. No./3847/2018-19	On-going (30.00 Lakh)

### **Membership and activities in professional associations**

- The Non-Official Member of Regional Empowerment Committee (REC) under Forest (Conservation) Act 2003 at Regional Office, East Central Zone, Ranchi, constituted by Ministry of Environment Forests and Climate Change, Government of India, New Delhi (Extraordinary, Part II-Section 3-Sub-section (ii), The Gazette of India, New Delhi, Thursday, January 8, 2015/PAUSA 18, 1936).
- Member of the State Level Appraisal Committee for Critical Public Utility Infrastructure Projects" in Jharkhand State vide letter no Forest Land-03/2018-2246 dated 29/05/2018 MoEF&CC Government of Jharkhand" since 31st December 2020.
- Invited Member of the "State Level Steering Committee" for Climate Change by the MOEF&CC, Government of Jharkhand.
- Member (Assistant Professors Constituency) of General Council and Executive Board (GC & EB), Indian School of Mines, Dhanbad, 2014-15.
- External Expert in the Board of Studies in Department of Biotechnology (2014-15), Vinoba Bhave University, Hazaribag, Jharkhand.
- External Expert in the Board of Studies for framing Syllabi of M.Sc. (Environmental Science, 2014-15), Vinoba Bhave University, Hazaribag, Jharkhand.
- Life Member (L-1725) of Geological Society of India P.B. No. 1922, Gavipuram P.O. Bangalore – 560 019, India.
- Empanelment as Functional Area Expert for CMPDIL, Ranchi, 2013-2016.
- NABET-QCI accreditation as a Functional Area Expert (FAE) in the area of Water pollution and Control, Ecology and Biodiversity (EB), Soil Pollution and Control for "A" type industries for preparing EIA/EMP.
- Life Member (LM-803) of Indian Geological Congress, Post Box No. 114, 402/1, 35A, Civil Lines, Roorkee-247 667 (INDIA).
- Annual Member of Indian Society of Soil Science, NGSC Complex, Dev Prakash Marg, Pusa, New Delhi 110012, India.
- Member of Interview Panel for the selection of sponsored candidates in ESE M.Tech programme 02 July 2019.
- Member of NERCS (Network of Experts & Resources for Subsurface Investigations and Remediation of Contaminated Sites), Network List, Ministry of Environment, Forest & Climate Change, 2019.

### **Professional honors, awards and fellowships:**

- Qualified Joint CSIR-UGC National eligibility Test (NET) in subject Life-Sciences held on 25.06.2000.
- Qualified Joint CSIR-UGC Junior Research Fellowship (JRF) and Eligibility for Lectureship-National Eligibility Test (NET) in subject Life-Sciences held on 31.12.2001.
- Appeared in Shyama Prasad Mukherjee Fellowship test held on 14th July, Kolkata, 2002.

### **Community service**

- Teacher Training Course of YOGA SHIKHAK 1<sup>st</sup> September to 26<sup>th</sup> September 2006, Bihar School of Yoga, Munger, Bihar-811201.

(Anshumali)