

Brief Bio-data

1. Name: Dr. Bhanu Pandey
2. Date of Birth: 26/03/1985
3. Current Position and Address (Include Email ID and Contact Number):
Scientist, E.ID. 782, Natural Resource Management,
CSIR-Central Institute of Mining & Fuel Research, Barwa Road, Dhanbad - 826 015
Jharkhand, India Mobile: +91 9453775322
4. Educational qualifications: (Graduation and above)

Sl. No.	Degree	Year of Passing	University/Institute	Subject
1	B.Sc. (Hons)	2007	Banaras Hindu University, Varanasi, 221005	Botany (Hons)
2	M.Sc.	2009	Banaras Hindu University, Varanasi, 221005	Botany
3	PhD.	2015	Banaras Hindu University, Varanasi, 221005	Botany

5. Work experience:

Designation	Institute/company	From	To	Nature of Work
Scientist	CSIR-Central Institute of Mining & Fuel Research	19/09/2017	Till date	R&D works

6. Work Area(s)/ Specialization: Environmental Pollution, Ecological Restoration, Ecophysiology, Biodiversity Assessment

7. Major contributions: (Max. 100 words):

The adverse impact of coal mining activities on plant community structure and soil quality have been studied and identified the major soil limiting factors and tolerant plant species in Jharia and Raniganj Coalfields. Mining area soil Quality index was developed for identification of tree species best suited for reclamation of coal mine spoil. The changes in species diversity observed at mining areas and identified various plant species selection strategies of the ecosystem in response to air pollution and altered soil characteristics.

8. No. of Research Publications:

- Papers in Journals: 13
- In conference proceedings: 09
- Invited lectures delivered: Nil
- List of best 05 publications

1. **Bhanu Pandey**, Madhoolika Agrawal, and Siddharth Singh. "Assessment of air pollution around coal mining area: emphasizing on spatial distributions, seasonal variations and heavy metals, using cluster and principal component analysis." Atmospheric pollution research 5.1 (2014): 79-86.

2. **Bhanu Pandey**, Madhoolika Agrawal, and Siddharth Singh. "Ecological risk assessment of soil contamination by trace elements around coal mining area." *Journal of Soils and Sediments* 16.1 (2016): 159-168.
3. **Bhanu Pandey**, Arideep Mukharjee, Madhoolika Agrawal and Siddharth Singh. "Assessment of seasonal and site-specific variations in soil physical, chemical and biological properties around opencast coal mines." *Pedosphere* 29.5 (2019): 642-655.
4. Annesha Ghosh, **Bhanu Pandey**, Madhoolika Agrawal, and Shashi Bhushan Agrawal. "Interactive effects and competitive shift between *Triticum aestivum* L.(wheat) and *Chenopodium album* L.(fat-hen) under ambient and elevated ozone." *Environmental Pollution* 265 (2020): 114764.
5. **Bhanu Pandey**, Siddharth Singh, Lal Babu Roy, Sameer Shekhar, Ranjeet Kumar Singh, Bably Prasad, and Krishna Kant Kumar Singh. "Phytostabilization of coal mine overburden waste, exploiting the phytoremedial efficacy of lemongrass under varying level of cow dung manure." *Ecotoxicology and Environmental Safety* 208 (2021): 111757.

- Books/Chapters authored/edited: Nine Book Chapters

9. List of 5 Major Contract R&D Projects:

1. Effect of different eco-compatible amenmnets on the growth and characterstics of plant species in coal mine overburden dumps Funded by CSIR-CIMFR
2. An investigation of the leaf retention capacity and efficiency for atmospheric particulate matter with source identification and size distrubution around Dhanbad city. Funded by CSIR-CIMFR
3. Biodiversity action study of Talabira 2 &3 OCP in Talabira Odisha Mining Pvt. Ltd., Talabira 2&3 Odisha Funded by Talabira Mining Pvt Ltd
4. Assessment of ecological status of reclaimed site of 245.20 ha at Sonapur Bazari OCP with the existing biodiversity and ecological gain, a field based study Funded by Eastern Coalfield Limited

10. (a) Name of Patents/Copyrights applied /granted/commercialized: Nil

(b) Technologies/Products /knowhow/Services developed : Nil

11. Honors/Awards/Recognitions/Fellowships/Scholarships/Professional Memberships received:

1. Awarded UGC Research Fellowships in Science for meritorious students (May 28, 2012 - May. 27, 2014 as JRF and SRF).
2. Best Poster Presentation Award, Under Ecology and Environment Session in Young Scientists conference of 4th India International Science Festival-2018 held in Lucknow (5th October to 8th October 2018) under

12. Societal Contributions: Provided Guidance to 8 M.Sc. Dissertation Student of Various Universities